CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS.

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CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

(denotes that this work is advertised in Engineering News.)*

The following Plans (P.) and Specifications (S.) are on file and may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work. Place.		See issue.
5-16	Lighting system, New Ft. Lyon, Colo.	(S.)	4- 9
5-18	Sewer, Cape Girardeau, Mo.	(P. & S.)	5- 7
5-19	*Grading, etc., Salisbury, Md.	(S.)	5-14
5-20	*Steel pipe, etc., Canon City, Colo.	(S.)	5-14
5-20	*Sea-wall, Montgomery, Ala.	(S.)	4-23
5-26	*Street paving, Gulfport, Miss.	(S.)	5-14
5-29	*Gymnasium, Ft. Hancock, N. J.	(P. & S.)	5- 7
5-20	*Iron fence, Ft. Ontario, N. Y.	(P. & S.)	4- 9
5-21	Dredging, Boston, Mass.	(S.)	4-30
5-23	*Jetty, Key West, Fla.	(S.)	4-23
5-29	Gun shed, Bremerton, Wash.	(S.)	5- 7
6- 1	*Grading, etc., Fort Andrews, Mass.	(P. & S.)	5-14
6- 1	Wharf repairs, Newport, R. I.	(P. & S.)	5- 7
6- 6	*Reservoir, etc., Neosho, Mo.	(P. & S.)	5-14
6- 6	Air compressor, Bremerton, Wash.	(S.)	5-14

LIST OF CONTRACTS PENDING.

LIGHT, HEAT AND POWER PLANTS.

5-16	Lighting system, New Ft. Lyon, Colo.	4- 9
5-18	Gas well, Medicine Hat, Alta.	5- 7
5-18	Elec. equipment, Calgary, Alta.	5- 7
5-18	Elec. equipment, New York.	5- 7
5-18	*Power plant, White Plains, N. Y.	5-14
5-20	*Conduits, etc., Tyler, Tex.	4-23
5-23	Power plant, Seattle, Wash.	5-14
5-25	Lighting plant, Carrollton, Ky.	5-14
5-27	Elec. supplies, Leavenworth, Kan.	5-14
5-27	*Cables, Washington, D. C.	5-14
5-30	Power plant plans, Oxford, Miss.	5- 7
6- 1	Lighting system, Carthage, Ohio.	5-14
6- 1	Boilers, Sandusky, Ohio.	5-14
6- 4	Conduits, etc., New York, N. Y.	5-14
6- 5	*Lighting fixtures, Wilkes-Barre, Pa.	5- 7
6-10	*Conduit, etc., Ogden, Utah.	5- 7
6-17	Lighting, Natchez, Miss.	5-14
6-20	Power-house, etc., New Orleans, La.	4-30

BRIDGES.

5-15	Bridges, Pittsburg, Ind.	4-23
5-15	Bridge, Lindale, Ga.	4-30
5-15	Bridges, Escanaba, Mich.	5-14
5-15	Bridges, St. Thomas, Ont.	5-14
5-16	Bridge, Ardmore, Okla.	5-14
5-16	Bridge, Berwyn, Okla.	5- 7
5-16	*Bridge, Vancouver, B. C.	5- 7
5-18	Bridge, Pikesville, Ky.	4-23
5-18	Bridge, Ogden, Utah.	5-14
5-18	Culverts, etc., South Bend, Ind.	5-14
5-20	Abutment, Dayton, Ohio.	5-14
5-21	Bridge, Benton Harbor, Mich.	5-14
5-21	Bridge work, New York, N. Y.	5-14
5-25	Bridge, Minneapolis, Minn.	5-14
5-26	Retaining wall, Waterville, Ohio.	5- 7
5-26	*Bridge, Oswego, N. Y.	5-14
5-27	*Substructures, etc., Evanston, Ill.	5-14
5-27	*Bridge, Columbus, Ga.	4-23
5-27	*Bridge, Chicago, Ill.	5- 7
5-29	*Bridges, Croton Falls, N. Y.	5- 7
6- 1	Bridge repair, Greenfield, Ind.	5-14
6- 3	Superstructures, etc., Columbus, Ohio	5-14
6- 4	Bridges, Goshen, Ind.	5-14
6- 4	*Bridge, Wakeman, Ohio	5-14

BUILDINGS.

5-15	Hospital (U. S. Possessions) Porto Rico	4- 9
5-15	Ice plant (Mfg. Pl.) Ft. Dade, Fla.	4-16
5-15	Engine houses, Pittsburg, Pa.	5- 7
5-16	School, Ft. Wayne, Ind.	5- 7
5-16	Interior work, Washington, D. C.	5-14
5-18	*Gymnasium, Ft. Morgan, Ala.	4-23
5-18	Schools, New York, N. Y.	5- 7
5-19	Iron floors, New York, N. Y.	5- 7
5-19	Police stables, New York, N. Y.	5-14
5-20	Schools, Miles, Wash.	4-30
5-21	*Hospital, Buffalo, N. Y.	4- 9
5-21	Chemical bldg., Ann Arbor, Mich.	5- 7
5-22	*Elevators, Wilkes-Barre, Pa.	5- 7
5-22	Quarters, Ft. Leavenworth, Kan.	5-14
5-25	Buildings, Buffalo, N. Y.	5-14
5-25	School, Bristol, Conn.	5-14
5-25	School, McKees Rocks, Pa.	5-14
5-25	Glass roof, Washington, D. C.	5-14
5-25	School, Cleveland, Ohio.	5- 7
5-25	Quarters, Ft. Meade, S. Dak.	5- 7
5-25	*Post-office, Chester, S. C.	4-16
5-25	Schools, New York, N. Y.	5-14
5-27	Court-house, New York, N. Y.	5-14
5-27	*Metal shelving, Superior, Wis.	5- 7
5-28	*Post-office, Houston, Tex.	4-23
5-29	*Bakery, Ft. Andrews, Mass. (Mfg. Pl.)	5- 7
5-29	Gun shed, Bremerton, Wash.	5- 7
5-29	*Gymnasium, Ft. Hancock, N. J.	5- 7
5-31	Plans, Agricultural College, Miss.	4-23
6- 1	Post-office, Grand Island, Neb.	4-30
6- 1	*Jail, Rolling Fork, Miss.	5-14
6- 1	Bakery, Ft. Terry, N. Y. (Mfg. Pl.)	5-14
6- 1	Library, Springfield, Mass.	5-14
6- 2	Post-office, New Ulm, Minn.	4-30
6- 2	*Educational bldg., Albany, N. Y.	4-23
6- 2	Plans, Richmond, Va.	4-16
6- 3	Post-office, Detroit, Mich.	5- 7
6- 4	*Quarters, West Point, N. Y.	5-14
6- 8	Post-office, Dover, N. H.	4-30
6- 9	*Engine, Ft. Wood, N. Y.	5-14
6-11	*Elevators, Seattle, Wash.	5-14
6-12	Post-office, St. Charles, Mo.	5- 7
6-17	Post-office, Newton, Kan.	5-14
6-22	*Post-office, Provo, Utah.	5-14
8- 1	Plans, St. Paul, Minn.	4-30

WATER-WORKS.

5-15	Water-works, Hildreth, Neb.	4-23
5-15	Water-works, Fort Saint Philip, La	4-30
5-16	Water-works, Trenton, N. J.	5-14
5-18	Pump, Niagara Falls, Ont.	5-14
5-18	C.-I. pipe, Dayton Ohio.	5-14
5-18	C.-I. pipe, Columbus, Ohio.	5-14
5-18	*Water-works plant, Council Bluffs, Iowa	3-16
5-18	*Reservoirs, Monterey, N. L., Mex.	5- 7
5-18	Engine, Guelph, Ont.	5- 7
5-19	Water system, Augusta, Me.	5- 7
5-20	*Reservoirs, etc., Canon City, Colo.	4-30
5-20	*Water pipe, Dallas, Tex.	5-14
5-21	Tank, Ft. Assinniboine, Mont.	5- 7
5-22	Water-works, Roswell, N. Mex.	5- 7
5-25	Water plant, Carrollton, Ky.	5-14
5-26	*Pumping engines, Ely, Nev.	5-14
5-28	*Pumping station, Alta Loma, Tex.	5- 7
5-29	*Reservoir, Owego, N. Y.	5-14
6- 1	*Pipe, Yonkers, N. Y.	5-14
6- 1	Water mains, Grand Forks, N. Dak.	5-14
6- 1	Pumping station, Fort Mason, Cal.	5-14
6- 1	*Tanks, Ft. Monroe, Va.	5- 7
6- 1	Water-works, Shelby, N. C.	5- 7
6- 2	*Siphon, New York, N. Y.	5- 7
6- 2	C.-I. pipe, Cincinnati, Ohio.	5-14
6- 6	*Reservoir, Neosho, Mo.	5- 7
6- 9	*Pipe, Kimberly, Nev.	5-14
6-30	*Pumps, etc., New Orleans, La.	4-22
7-15	*Channel, Sunnyside, Wash.	5- 7

SEWERS.

5-15	Sewer system, Fort Saint Philip, La.	4-30
5-15	Sewer, Indianapolis, Ind.	4-23
5-15	*Sewers, Huntingdon, Pa.	5- 7
5-15	Pipe sewer, Foxcroft, Me.	5-14
5-16	Sewers, Preston, Ont.	5-14
5-18	Sewer, Youngstown, Ohio.	5-14
5-18	Sewer, Steubenville, Ohio.	5-14
5-18	Sewer, West Lafayette, Ind.	5- 7
5-18	*Sewer system, Cape Girardeau, Mo.	4-23
5-19	Sewer, Trenton, N. J.	5- 7
5-19	Sewer, Sewickley, Pa.	5-14
5-20	Sewer, Indianapolis, Ind.	5-14
5-20	*Sewers, Lake Placid, N. Y.	5-14
5-21	*Sewer pipe, Brantford, Ont.	5- 7
5-23	*Sewer, Ardmore, Pa.	5- 7
5-25	Sewers, East Rutherford, N. J.	5-14
5-26	*Sewer, Peekskill, N. Y.	5-14
5-26	Sewer, New York, N. Y.	5-14
5-26	*Sewers, Gulfport, Miss.	4-23
5-27	Drains, Baltimore, Md.	5-14
5-27	*Sewer, Louisville, Ky.	5-14
5-28	*Sewer, Chillicothe, Ohio.	4- 7
6- 1	Sewers, Saginaw, Mich.	4-30
6- 1	Sewer system, Shelby, N. C.	5- 7
6- 3	Sewers, New York, N. Y.	5-14
6-30	Sewerage machinery, New Orleans, La.	5-14

STREETS AND ROADS.

5-15	Pavement, Petrolia, Ont.	4-30
5-15	Street improvement, Cincinnati, Ohio	5- 7
5-15	Grading, Spokane, Wash.	5- 7
5-15	Regulating street, New York, N. Y.	5- 7
5-15	Grading, Olympia, Wash.	5- 7
5-16	Gravel road, Indianapolis, Ind.	4-23
5-16	Stone, Hilton, N. Y.	5-14
5-18	Street improvement, Cincinnati, Ohio	5-14
5-18	Paving, Youngstown, Ohio.	5-14
5-18	Paving, Muskegon, Mich.	5-14
5-18	Road improvement, St. Paul, Minn.	5- 7
5-19	*Grading, etc., Salisbury, Md.	5- 7
5-19	*Grading, etc., Muncie, Ind.	5- 7
5-19	Pavement, Hornell, N. Y.	5-14
5-19	Street improvement, Bayonne, N. J.	5-14
5-19	*Paving, etc., Kingston, Pa.	5-14
5-19	Paving, Trenton, N. J.	5-14
5-19	Street improvement, Cincinnati, Ohio	5-14
5-19	Road, Hartford, Conn.	5-14
5-20	Street improvement, Cincinnati, Ohio	5-14
5-20	Road, Harrisburg, Pa.	5-14
5-20	Grading, etc., New York, N. Y.	5- 7
5-21	Roads, Harrisburg, Pa.	5-14
5-21	Grading, etc., Avalon, Pa.	5-14
5-22	*Pavement, Knoxville, Tenn.	5-14
5-22	Macadam, Waukeska, Wis.	5-14
5-23	Roads, Terre Haute, Ind.	5-14
5-25	*Paving, Smethport, Pa.	5-14
5-26	Roads, Harrisburg, Pa.	5-14
5-26	*Pavements, etc., Gulfport, Miss.	4-23
5-26	*Macadam, Elizabeth, N. J.	5- 7
5-27	Asphalt plant, San Francisco, Cal.	5-14
5-27	Roads, Harrisburg, Pa.	5-14
5-28	Road, Harrisburg, Pa.	5-14
5-29	Paving, Westerville, Ohio.	5-14
5-30	Macadam road, Greencastle, Ind.	5-14
6- 1	Road, etc., Fort H. G. Wright, N. Y.	5-14
6- 1	Road, Jasper, Ind.	5-14
6- 1	Road, Tipton, Ind.	5-14
6- 1	Road, Franklin, Ind.	5-14
6- 1	Roads, Decatur, Ind.	5-14
6- 1	Plank roads, Fort Pickens, Fla.	5-14
6- 1	Road crossings, Columbus Barracks, Ohio	5-14
6- 1	Roads, Harrisburg, Pa.	5-14
6- 1	Paving, New Brunswick, N. J.	5-14
6- 1	Road, Fort Lyon, Me.	5-14
6- 1	*Grading, etc., Ft. Andrews, Mass.	5- 7
6- 1	Roads, Fort Slocum, N. Y.	4-23
6- 8	*Paving, Newark, N. J.	5- 7
6- 8	*Gravel road, Cape May, N. J.	5-14
6-15	*Concrete walks, Fort Barrancas, Fla.	5-14

MISCELLANEOUS.

5-14	Ditch, Muncie, Ind.	5-14
5-14	Sluice gates, Chicago, Ill.	5-14
5-15	Drainage, Boone, Iowa	5-14
5-15	Dredging, Ottawa, Ont.	5- 7
5-15	*Pier repairs, Michigan City, Ind.	4-30
5-15	*Dredging, Norfolk, Va.	4-23
5-16	Cement, Nat. Mil. Home, Kan.	5-14
5-18	Bending plate machine, Sorel, Que.	5-14
5-18	Concrete work, Toronto, Ont.	5-14
5-20	Dredging, New York.	5-14
5-20	Bulkhead, Baltimore, Md.	5-14
5-20	*Iron fence, Ft. Ontario, N. Y.	4- 9
5-20	*Sea wall, Montgomery, Ala.	4-23
5-20	Root house, Ft. Meade, S. Dak.	5- 7
5-21	Masonry wall, New York.	5- 7
5-21	Dredging, Boston, Mass.	4-30
5-21	Concrete wall, New York.	5-14
5-23	Ditch, Frankfort, Ind.	5-14
5-23	*Jetty, Key West, Fla.	4-23
5-23	Steel steamer, Wash., D. C.	5- 7
5-27	*Dredging, docks, Chicago	5- 7
5-24	Chimney, Eldora, Iowa	5-14
5-25	Riprap, New York	5-14
5-26	Garbage, New York, N. Y.	5-14
5-28	Ditch, Crookston, Minn.	5-14
6- 1	Light, tower, Ft. Michie, N. Y.	5-14
6- 1	Bulkhead, Ft. Mansfield, R. I.	5-14
6- 1	Fog-signal bldg., Portland, Ore.	5-14
6- 1	*Dredging, Charleston, S. C.	5- 7
6- 1	*Lock-gate house, Boston, Mass.	5- 7
6- 1	Wharf repairs, Newport, R. I.	5- 7
6- 1	Wharf, Portland, Me.	5- 7
6- 1	Drain, Osnabruck Centre, Ont.	4-23
6- 1	*Wharf, Boston, Mass.	4-30
6- 4	*Light-house, New London, Conn.	5- 7
6- 6	Air compressor, Bremerton, Wash.	5-14
6- 9	Treated lumber, New Orleans, La.	5- 7
7-13	*Lock, dam, Vicksburg, Miss.	5-14

CIVIL SERVICE.

5-15	Laboratory Asst., Wash., D. C.	5-14
5-20	Lumberman, Wash., D. C.	5-14
5-21	Scaler, Wash., D. C.	5-14
5-26	Dockmaster, New York.	5-14
6- 1	Supt.; 'Phone Constr., Wash., D.C	5-14
6- 1	Plant Ecologist, Wash., D. C.	5-14
6- 3	Testing Engr., Washington, D. C.	5-21
6- 3	Laboratory Asst., Wash., D. C.	5-21
6- 3	Lamp Inspector, Wash., D. C.	5-21
6- 3	Laboratory Inspect., Wash., D. C.	5-21
6- 3	Chemist, Wash., D. C	5-21
6-17	Elevator Electrician, Tampa, Fla.	4-19
6-24	Lab. Asst., Wash., D. C.	4-19

RAILWAYS.

ALLEGHENY COAL R. R.—We are officially advised that this company has postponed for the present the construction of proposed 45-mile railway from Jarvisville, W. Va., to Fairmont, via Clarksburg. F. S. Landstreet, 1 Broadway, New York, is named as the promoter. J. W. Galbreath, Baltimore Md., is Ch. Engr.

ARIZONA SOUTHERN.—This company has been incorporated in Minnesota with a capital stock of $100,000 to build a railroad in southern Arizona. A. A. Van Dyke, of St. Paul, J. A. Engelhind, of Alexandria, Minn.; and Cleve Van Dyke, of Warren, Ariz., are the incorporators.

BALTIMORE & OHIO.—Official announcement is made by this company that "in view of financial and business conditions it is not contemplated to undertake any big new work at present."

BINGHAM CENTRAL.—A mortgage for $3,000,000, executed in favor of the Metropolitan Trust Co. of New York, has been filed at Salt Lake City, Utah, according to the Salt Lake City "Republican." The company proposes to build a line from Salt Lake City to Bingham, 30 miles. Surveys have been completed. Construction probably will begin as soon as contracts can be let. Adrian C. Ellis, Jr., is Pres., and W. T. Gunter is Secy., Salt Lake City.

BITTER ROOT R. R.—We are officially advised that this company proposes to build a railroad from Lewiston, Idaho, to Butte, Mont., 350 miles. Line is surveyed from Lewiston to forks of Clearwater River, a distance of 84 miles. Officers of the company are: Pres., C. G. Sutherland; Vice-Pres., H. F. Conner; Ch. Engr., George W. Boschke; Treas., J. W. Newkirk; Secy, W. R. Litzenberg; Auditor, R. Blaisdell. No construction work contemplated in immediate future. Noted fully on Jan. 9.

CAROLINA, CLINCHFIELD & OHIO.—We are officially informed that this company is proceeding with the construction of a line of railroad from Dante, Va., to a point on the line between the states of North Carolina and South Carolina, of which line the portion from Johnson City, Tenn., to Altapass, N. C., is in operation, and the portion from Dante, Va., to Fink, Va., is being operated by this company under lease. By amendment to its charter, obtained March 7, 1908, the name of South & Western R. R. Co., a corporation organized and existing under the laws of the state of Virginia, was changed to Carolina, Clinchfield & Ohio Ry., and this corporation has acquired by purchase the properties formerly owned by South & Western R. R. (of Tennessee), and South & Western R. R. Co. (of North Carolina). J. C. Stone, Secy., Johnson City, Tenn. Fully noted on March 19.

CHAMPLAIN & SANFORD.—Incorporated in New York with capital stock of $600,000 to build a steam or electric railroad from Addison Junction to Sanford Hill, N. Y., 58 miles. The incorporators and board of directors are as follows: Charles M. Hyatt, P. O. Box 118; Andrew Thompson, P. O. Box 118; James MacN. Thompson, P. O. Box 118; Guy D. Hills, P. O. Box 118; David A. Thompson, 13 North Pearl St.; Lewis R. Parker, 25 North Pearl St.; Andrew B. Jones, 520 Broadway; Sydney T. Jones, 520 Broadway, and MacNaughton Miller, 200 Washington Ave., all of Albany, N. Y. Mr. J. MacN. Thompson advises us that preliminary surveys have not been completed yet. Company's offices are in the Home Savings Bank Bldg., Albany.

COLORADO, HEREFORD & GULF.—Incorporated in Texas with a capital stock of $420,000 to build a railway from a point on the northern line of Dallam County in a southerly and southeasterly direction through the counties of Dallam, Hartley, Oldham and Deaf Smith, to the town of Hereford, and thence in a southeasterly direction through the counties of Deaf Smith, Castro, Lamb, Hartley, Terry, Gaines, Dawson, Martin, Midland, Glasscock, Sterling and Irion, to San Angelo, Tex. Total length, 420 miles. The principal offices will be at Hereford, Tex. The incorporators are: A. D. Goodenough, George W. Irwin, Jr., C. W. Dodson, T. E. Shirley, John P. Slaton, W. M. Knight, W. D. Beach, G. A. Parker, C. G. Witherspoon, L. Gough, J. D. Thompson, C F. Kerr and J. L. Fuqua, all of Hereford. The residents of Deaf Smith and Castro Counties, Tex., have subscribed $30,000 toward the construction of this road, as noted on April 23.

DEXTER & EASTERN.—This company has been incorporated in New York to build and operate a steam railroad between Dexter and Dexter Junction, N. Y., as noted on April 9. Capital stock, $20,000. We are officially advised that this road, which will be two miles long, has been practically completed. E. D. Bennett, Pulaski, N. Y., is contractor. C. W. Campbell, Dexter, is Pres. No further contracts will be let.

ELGIN, WOODSTOCK & LAKE GENEVA.—At the first meeting of the Board of Directors of the recently incorporated Elgin, Woodstock and Lake Geneva R. R. Co. held in Elgin, definite plans for beginning construction and other matters were settled. Frank R. Spear, Pres. of Spear, Miller & Co., Chicago, was elected Pres. Noted on April 23.

HUDSON BAY PACIFIC.—This company, which was organized last year with a capital of $3,000,000, has recently been incorporated under an act of the British Columbia Legislature. The company proposes to build a line from near Port Simpson, B. C., on the Pacific coast east along the Skeena River to Hazleton, thence via the head of Babine Lake to the north end of Stuart Lake; thence north of McLeod Lake via Pine River Pass, along the Pine River; thence to Moberly Lake and along Peace River valley to the eastern boundary of British Columbia. The articles provide also for building branch lines not over 20 miles long. The provincial directors include D. B. May, of Seattle, Wash.; J. McLachan, Los Angeles, Cal.; L. A. Benson, Goldfield, Nev.; N. H. Harding, Jr., and W. H. Duval, New York.

KETTLE FALLS & COLUMBIA RIVER.—We are officially advised that this company, projected by Dr. H. A. Baldwin and C. J. Webb, of Kettle Falls, which plans to build a railroad between Kettle Falls and the mouth of the Spokane River, probably will take no further steps at present. Application for franchise states that it is proposed to organize the Kettle Falls & Columbia River Transportation Co., which will construct the line. The new railroad will traverse the Columbia River Valley for 45 miles and will be operated by steam at first. Noted on Jan. 30.

LOS ANGELES HARBOR R. R.—A. C. Bird, Pres. Security Bldg., Los Angeles, Cal., advises us that this company has just organized to build a railroad 25 miles long. It will extend from Los Angeles to Wilmington, Cal., as noted on April 16. Surveys have been made and right-of-way mostly all secured. A. H. Koebig is Ch. Engr., Security Bldg.

LUEHRMAN & WESTERN.—We are officially informed that this company, which was recently chartered in Arkansas to build a railway from Luehrman, Ark., on the Missouri Pacific system, to Reyno, Randolph County, Ark., 9½ miles, has already constructed the line. Capital stock, $20,000.

George W. Luehrman, Pres., St. Louis, Mo., and W. M. Alexander, Secy. and Treas., Knobel, Ark. Noted on April 16.

PHILADELPHIA TERMINAL TRANSFER R. R.—We are officially advised that this company proposes to build a 14½-mile belt line around Philadelphia, from a point on the Schuylkill River, near Conshohocken, to the Delaware River in Tinicum Township, Delaware County. Capital stock, $150,000. Survey has been made, but right-of-way has not been secured yet. H. A. Farrand is Ch. Engr., 618 Mariner & Merchant Bldg., Philadelphia. The officers are: E. B. Colket, Pres.; Meredith B. Colket, Percy C. Colket, G. W. Freed, Jr., Fleming Parke, Philadelphia; Clarence L. Potts, West Chester; C. S. Ayres, Ardmore; Franklin McCall, Haverford, and Herbert K. Adams, Eddington. Noted on April 9.

RUSTON, NATCHITOCHES & NORTH-EASTERN.—This company will build a railway from Farmerville, La., southwest via Flemming, Ruston, Saline, Natchitoches and Leesville to the Texas state line, thence through Texas to a point at tidewater not yet determined upon, probably at Port Arthur, a distance of about 260 miles. J. C. Nolan is Pres. and J. Wesley Hall, Ch. Engr., Ruston, La.

TEXAS & PACIFIC.—The Railroad Commission of Texas on May 5 ordered improvements on the Texas & Pacific R. R. between Fort Worth and Sierra Blanca, Tex., a distance of 500 miles, to cost $2,000,000. This is in addition to betterments previously ordered by the commission on other divisions of the road. All the improvements must be made by June 11, 1909. On April 2 it was noted that "L. S. Thorne, Vice-Pres. and Gen. Mgr. of the Texas & Pacific, notified the Railroad Commission of Texas on March 18 that this company will be unable on account of the condition of the money market to comply with the orders issued by the commission requiring it to make expensive improvements in its track and to purchase a large amount of new equipment. It is further stated that the improvements ordered are not needed at this time even if it were possible to get the money with which to make them."

VIRGINIA & SOUTHWESTERN.—The stockholders at a meeting held on April 1 at Bristol, Tenn., authorized a bond issue of $7,000,000 for the purpose of raising funds to purchase the Holston River Railroad, extending from Moccasin Gap, Va., to Persia, Tenn., about 40 miles, and the Black Mountain Railway, extending from Appalachia, Va., into the Lee County coal fields, about 30 miles long. John B. Newton is Vice-Pres. and Gen. Mgr., and H. W. Oliver is Secy., Bristol, Tenn. E. S. Fraser is Ch. Engr., Bristol.

UNION PACIFIC.—Shareholders of the Union Pacific Railroad Co. at a special meeting at Salt Lake City, Utah, on May 5, authorized the issue of $100,000,000 of new bonds to be secured by a mortgage on a portion of the company's lines. They also authorized the Union Pacific to acquire the physical properties of the Leavenworth, Kansas & Western Ry. and the Topeka & Northwestern R. R. Both of these smaller roads now are owned by the Union Pacific system through ownership of all their bonds and stocks. They now become a part of the Union Pacific system. The Leavenworth, Kansas & Western owns 165 miles of railroad extending from Leavenworth to Miltonvale, Kan.,; and the Topeka & Northwestern owns 37½ miles from Menoken to Onaga, Kan.

VANCOUVER ISLAND & EASTERN.—Application has been made to Parliament for a charter. This company was organized last year to build a railway from Esquimalt harbor, Vancouver Island, B. C., north to Seymour's Narrows; and from Bute inlet or Frederick inlet on the mainland of British Columbia, east via Yellowhead Pass to Edmonton, Alta., about 900 miles. The provisional directors include T. W. Paterson, T. J. Jones, R. C. Lowe and H. A. Munn, Victoria, B. C.; James Smith, Edmonton, Alta., and M. J. Harvey, Toronto, Ont.

WISCONSIN CENTRAL.—JONES BROS., of Minneapolis, Minn., have been awarded the contract for constructing a trestle and underground crossing in Superior to cost about $150,000.

BALCH BROS., Century Bldg., Minneapolis, have contract for 3½ miles of grading in Superior.

ELECTRIC RAILWAYS.

NEW YORK, N. Y.—We are officially informed that the Hudson & Long Island Traction Co., of New York City, which was incorporated at Albany on March 31, has made survey for its proposed street railway from Twelfth Ave. and 42d St., New York, along Twelfth Ave. to 49th St., to Eleventh Ave. and to 57th St. and across 57th St. to the Blackwell's Island bridge. Contracts will be let when right-of-way is secured. It is now being obtained. Capital has been secured. Capital stock, $50,000. The directors are Frederick K. Morris, 2027 Seventh Ave., Pres.; Anthony Stumpf, 22 Pine St.; Arthur C. Hume, 30 Broad St., Secy.; Harold B. Weaver, Cassius M. Wicker, Henry A. Belden, William V. Lomax and John J. Clancy, of New York. William B. Spencer, Times Bldg., New York, is Ch. Engr. Noted on April 9.

Bids were received by the Public Service Commission, First District, on May 8 for construction of six sections of the Fourth Ave. subway in Boro. of Brooklyn: (A) Flatbush Ave. extension, Nassau St. to Willoughby St., Manhattan Bridge, No. 1; (B) Willoughby St. to Ashland Place; (C) Fourth Ave., and Ashland Place to Fulton St. and Sackett St.; (D) Fourth Ave., Sackett St. to Tenth St.; (E) Fourth Ave., Tenth St. to 27th St.; (F) Fourth Ave., 27th St. and 43d St. List of bids is given under Miscellaneous Contracts. Travis H. Whitney, Secy.

ROME, N. Y.—We are officially advised that surveys have been made and right-of-way secured by the Rome & Osceola R. R. Co. to build a standard-gage railroad from Rome to Osceola, N. Y., 25 miles. It is to be operated by steam or electric power. The capital stock of the company is $500,000. The directors of the corporation are as follows: W. Pierrepont White, Pres., Utica, N. Y.; David Swancott, of Lee Center, N. Y.; Jay A. Pease, of Boonville; William I. Taber and Hugh White, of Utica; W. S. Jones, of Pierrepont Manor; Jonathan S. Haselton, Thomas H. Stryker, Franklin A. Ethridge, John S. Wardwell, Fred M. Shelby, Edward H. Comstock and John D. McMahon, of Rome. Clifford Lewis, Jr., Second National Bank Bldg., Utica, is Ch. Engr.

OAKLAND, MD.—The Swallow Falls Electric Light & Power Co. may build an electric railway from Oakland, Md., to Swallow Falls, Md., ten or eleven miles, where it will connect with the narrow-gage line four miles long which also connects with the Confluence & Oakland branch of the Baltimore & Ohio Railroad at Krug, Md. H. P. Tasker, of Oakland, Md., is interested.

WASHINGTON, D. C.—The Washington, Westminster & Gettysburg R. R. Co. has completed surveys for its proposed line from Washington, D. C., to Gettysburg, Pa., 90 miles, via Sandy Spring, Laytonsville, Damascus, Mt. Airy, Westminster and Littlestown. Contracts will be let for the entire construction. Grading is to be started this summer. James B. Colegrove is Pres.; A. A. Chapin is Vice-Pres., and Walter Atlee, Baltimore, is Ch. Engr. Noted under Railways on Feb. 20.

FAIRMONT, W. VA.—We are officially advised that F. D. BLODGET & CO., of Wheeling, W. Va., are contractors for the proposed Fairmont & Mannington St. Ry., the construction of which will be resumed. The line will connect the two cities and will be 16 miles long. Grading is practically completed. Five miles of track were laid last fall. Surveys are made, capital secured and right-of-way obtained. Thomas Fleming is Pres. and S. Miller is Ch. Engr., Fairmont.

GREENVILLE, S. C.—The Greenville & Carolina Railway Co. has organized to build the proposed electric railway from Greenville, S. C., to Hendersonville and Asheville, N. C., 70 miles, at a cost of about $2,000,000. Survey is in progress. As noted last week, the CAROLINA CONSTRUCTION CO., of Asheville, N. C., has the contract. The officers are T. E. Smith, of Greer, S. C., Pres.; L. W. Walker, of Hendersonville, N. C., Secy. and Treas. Directors: J. A. Bull, of Chick Springs, S. C.; J. W. Kendrick, of Taylors, S C.; J. F. Rowland, of Hendersonville, N. C.; J. W. Brunson, Jr., and F. H. Allison, of Asheville, N. C.

PADUCAH, KY.—We are officially advised that the Royal Investment Co., 605 Globe Bldg., Minneapolis, Minn., which is promoting the Kentucky & Ohio River Interurban Ry., is in the market for rails, bridge supplies, etc. Contracts for grading, etc., will be let. It is planned to begin work about May 15. The WESTERN ENGINEERING & CONSTRUCTION CO., 605 Globe Bldg., Minneapolis, has the general contract. Noted fully last week.

NORWALK, OHIO.—We are officially advised that arrangements for financing the construction of the Cleveland & Indianapolis Interurban Ry., from Norwalk to Bluffton, Ind., are under way with prospects for early completion. C. F. Jackson, of Norwalk, is interested.

CONNEAUT, OHIO.—The Lake Erie & Youngstown Electric R. R. Co. has increased its capital stock from $10,000 to $3,500,000. This company plans to build an electric line from Conneaut, Ohio, to Youngstown, about 60 miles. W. F. Stanley, of Conneaut, is Pres. Right-of-way is 75% secured.

VINCENNES, IND.—The Vincennes, West Baden & Louisville Ry. Co. plans to begin the construction of its line this summer. It will be about 43 miles long and will connect Vincennes, Monroe City, Petersburg, Otwell, Alfordsville, Ireland, Algiers and Jasper. The company may operate amusement parks at Lakewood, Vincennes, Petersburg and Jasper. The capital stock of the company is $1,500,000. Thomas H. Adams, Vincennes, is Pres.; Anthony M. Yelton, Vincennes, Secy.; John O. Davis, Petersburg, Treas. The headquarters are at 116 North Seventh St., Vincennes.

KANKAKEE, ILL.—The Chicago, Kankakee & Champaign Eec. Ry. Co. has made survey for the proposed line from Kankakee to Champaign. I. F. Palmer, Onarga, Ill., is Pres.; U. Schaub, Vice-Pres.; Robert W. Renton, Kankakee, Ch. Engr.

RED OAK, IOWA.—We are officially informed that the Red Oak & North Eastern Interurban Promotion Co. has applied for a charter in Iowa to promote the construction of an electric railway from Red Oak to Des Moines, Iowa, 107 miles, passing through Milford, Fontanelle, Greenfield, Stuart, Redfield, Adel and Waukee. Surveys are partly made. Right-of-way has not been secured yet. Capital stock, $10,000. Incorporators: B. B. Clark, Pres., Red Oak; G. W. Curtis, Vice-Pres., Redfield; M. N. Spencer, Secy., and L. D. Goodrich, Treas., Red Oak. Noted on April 2.

ABERDEEN, S. DAK.—J. A. Cleaver, of Huron, S. Dak., has applied to the City Council for a franchise to construct a terminal for an electric railway, which is to be built between Aberdeen and Huron. It will be 82 miles long. Noted on March 5.

JOPLIN, MO.—The Joplin & Pittsburg Ry. Co., which will build an electric interurban railroad from Joplin, Mo., to Pittsburg, Kan., has its executive office in the First National Bank Bldg., Kansas City, Mo.; operating office at Pittsburg, Kan.; construction office at Joplin, Mo. J. J. Heim, of Kansas City, is Pres.; John A. Prescott, of Kansas City, Secy. and Treas.; R. W. Harris, of Pittsburg, Kan., is Mgr.; D. L. Robinson, Joplin, Mo., is Mgr. of Construction; Henry Rohwer, of St. Louis, Mo., is Engr. As noted on April 23d, "we are officially advised that bids will be received from contractors at the office of A. L. Register & Co., Miners Bank Bldg., Joplin, at once, for laying 25 miles of 70-lb. rail between Joplin, Mo., and Pittsburg, Kan., for the Joplin & Pittsburg Ry. Co. They will also award contracts for the complete construction, for the catenary and overhead lines between these points."

FORT SMITH, ARK.—We are officially advised that the Fort Smith, Checotah & Shawnee Interurban Ry. Co. plans to award construction contracts as soon as money is obtained to complete permanent survey and to secure right-of-way. The line will run from Fort Smith, Ark., to Shawnee, Okla, approximately 160 miles. R. B. Hutchinson is Pres. and R. O. Smith is Vice-Pres. and Mgr., both at Checotah, Okla. Noted on March 26.

SPOKANE, WASH.—The Okanogan Electric Ry. Co. has completed surveys for its proposed line which will connect Nighthawk, Loomis, Conconully, Riverside, Omak and Okanogan, the total length of which is to be 60 miles. Company will install the overhead trolley system. The company has an authorized capital stock of $3,000,000, of which $1,200,000 has been issued. The officers are the following: A. M. Dewey, Pres. and Gen. Mgr., Empire State Bldg., Spokane; E. K. Prendergast, Vice-Pres.; L. K. Armstrong, Secy.; M. D. Winder, Ch. Engr. Active construction is to be commenced in July and it is expected to have cars running within 18 months from that time. Cost of road, including equipment, will be about $80,000 per mile.

VENTURA, CAL.—Frank Packard, of Los Angeles, has secured a franchise to build an electric road to Matilija. Arrangements have been made for preliminary work.

BISBEE, ARIZ.—The Cochise County Elec. R. R. Co. has been incorporated with $500,000 capital stock to build a line between Bisbee and Douglas. The incorporators, who also constitute the board of directors, are James S. Douglas, W. H. Brophy, M. J. Cunningham, M. J. Brophy and George Neale, all of Bisbee. The capital stock represents the sum that it is expected will be expended in order to put the road in actual operation.

RENO, NEV.—The City Council has granted to S. H. Wheeler and Charles H. Burke, both of Reno, a franchise for an electric street railway. Noted on Feb. 20.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

DANIELSON, CONN.—The Danielsonville Water Co. has purchased a tract of land at Pomfret Landing and will construct a dam to secure water power for its plant. The company will erect another mill either here or at Pomfret Landing.

*WHITE PLAINS, N. Y.—Bids are asked until11 a. m., May. 1 8(postponement from May 1), by the Board of Supervisors, Chauncey T. Secor, Chn. of the New Court-House Com., for furnishing material and constructing a depressed boiler and power-house for the Westchester County Court-House at White Plains. Lord & Hewlett, Archs., 345 Fifth Ave., N. Y. City.

NEW YORK, N. Y.—Bids are asked until 3 p. m., June 4, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the installation of an interior conduit and wiring system for vacuum tube lighting in the basement of the U. S. courthouse and post-office building, New York.

NEW YORK, N. Y.—Bids are asked until 11 a. m., May 25, by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, for installing electric equipment in new Public School No. 100, on 138th and 139th Sts., about 100 ft. west of Fifth Ave., Boro. of Manhattan.

The following bids were received on May 11 by C. B. J. Snyder Supt. School Bldgs., for installing electric equipment in addition to and alterations in Public School No. 24, between Arion Pl. and Belvidere St., Boro. of Brooklyn: T. Frederick Jackson, 592 Columbus Ave., $8,813; Commercial Construction Co., $9,253; Griffen & Co., 116 Nassau St., $9,748.

FOREST CITY, PA.—The Forest City City Electric Light, Heat & Power Co. has awarded contracts for new equipment for its plant as follows: To the WESTINGHOUSE MACHINE CO., Westinghouse Bldg., Pittsburg, Pa., one 175-KW. 2-phase alternator, 30 magnetic arc lamps, switchboards and exciter; to the AMERICAN BALL ENGINE CO., of Bound Brook, N. J., one 350-HP. engine, and the KEELER BOILER CO., of Williamsport, Pa., for two 150-HP. boilers. Work will commence on improvements at once. A. D. Kehren is Supt.

*WASHINGTON, D. C.—Bids are asked until noon, May 27, by Lieut. W. H. Rose, Q. M., for furnishing and laying primary and secondary electric cable at Washington Barracks.

MILLVILLE, W. VA.—The Winchester & Washington Ry. Co., S. H. Hansborough, Pres., Winchester, Va., will double the capacity of its plant on the Shenandoah River at Millville; contracts amounting to $50,000 for machinery have been awarded to WESTINGHOUSE ELECTRIC & MFG CO., Pittsburg, Pa., and DAYTON GLOBE IRON WORKS CO., Dayton, Ohio.

CHARLOTTE, N. C.—The Chadwick-Hoskins Co. has awarded contract to the WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa., at about $40,000 for electrical equipment necessary for changing Hoskins, Chadwick and Louise mills from steam to electric power. The Southern Power Co., of Charlotte, will build sub-station near mills. The Chadwick-Hoskins Co. operates 100,000 spindles and 2,300 looms.

SYLVESTER, GA.—The city will erect an electrical plant, for which $10,000 of bonds were recently voted. C. W. Hillhouse is Mayor. No engineer has been selected.

MACON, GA.—We are officially advised that J. G. WHITE & CO., INC., 49 Exchange Pl., New York, have been awarded the contract for engineering and constructing a complete hydro-electric plant, with transmission lines, substations, for the Central Georgia Power Co. [illegible] plant will be built on the Ocmulgee R[illegible] about 36 miles above Macon, supplying [illegible] to this point and to other points in vicinity. The normal capacity of the [illegible] will be probably 12,500 KW., generat[illegible] water-wheels under 100-ft. head. The [illegible] of the dam will be probably 750 ft.

JASPER, ALA.—The Ja[illegible] Water, Light & Power Co., Jasper, [illegible]plates extensions and improvements [illegible] plant, plans for which are being prep[illegible] J. M. Cranford is Pres.

NATCHEZ, MISS.—Bids asked until June 17 (extension of tim[illegible] May 6), by George T. Sisele, City Cle[illegible] lighting the streets for a term of five [illegible] from May 1, 1909.

CARROLLTON, KY.—Bi[illegible] asked until May 25 for making imp[illegible]nts to the municipal electric light pl[illegible] William F. Schuerman is Mayor.

SANDUSKY, OHIO.—Bi[illegible] asked by the Board of Trustees of [illegible]diers' and Sailors' Home, Sandusky, [illegible] until June 1 for furnishing three or [illegible] boilers of 200 HP. to be installed in [illegible]ction with the power plant of the hom[illegible]ds will be received for steam pumps al[illegible]niel Dugan is Q. M.

CINCINNATI, OHIO.—The I[illegible]rban Railway & Terminal Co. has let co[illegible]ts for the construction of a sub-station [illegible]he following equipment: Two 250-KW. [illegible]otary converters with transformers an[illegible]witchboard complete; one quadruple 75-H[illegible] car equipment and two Christensen air-[illegible]ke equipments to the ALLIS-CHALMERS CO., of Milwaukee, Wis. The WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa., the contract for two quadruple 50-HP. car equipments.' B. E. Merwin, Cincinnati, is Gen. Supt.

CARTHAGE, OHIO.—Bids are asked at the office of John Kuderer, Secy. of Trustees of Public Affairs, until June 1 for furnishing labor and material for a new arc lighting system for the municipal electric light plant, consisting of a generator, switchboard, wiring and arc lamp equipment, in accordance with plans and specifications on file at the above office.

LIGONIER, IND.—The following bids were opened on April 21 by the City Council for constructing an electric light plant: (a) without meters and transformers; (b) with meters and transformers: Falkenau Electrical Construction Co., 108 La Salle St., Chicago, Ill., (a) $17,549, (b) $22,998; Arbuckle-Ryan Co., Toledo, Ohio, (a) $17,266, (b) $23,092; C. L. Olds Construction Co., Fort Wayne, Ind., (a) $17,605; Fairbanks-Morse Co., Franklin and Monroe Sts., Chicago, Ill., (a) $20,606, (b) $23,967; Model Gas Engine Co., Peru, Ind., for gas engine only, $12,375. A. J. Hammond, of South Bend, is Engr.

MENOMINEE, MICH.—The Menominee & Marinette Light & Traction Co., Menominee, Mich., will build a hydro-electric plant at Shappee Rapids, the estimated cost of which is $400,000. The current developed from this plant will be transmitted to Menominee, Mich., and Marinette, Wis., for light and power purposes. Edward Daniell is Mgr., Menominee.

NORTH CHICAGO, ILL.—The Bureau of Navigation, Navy Dept., Washington, D. C., has awarded contract for the construction of a power-house at the Naval Training Station, North Chicago, Ill., to the D'OLIER ENGINEERING CO., 121 South 11th St., Philadelphia, Pa., at $126,550.

LOYAL, WIS.—The Village Board has awarded contracts for equipment for the municipal electric light plant as follows: For gas engine and producer to the NATIONAL METER CO., 84 Chambers St., New York, N. Y.; pumps to GOULDS MFG. CO., of Seneca Falls, N. Y., and for generator and switchboard to the WESTERN ELECTRIC CO., 259 South Clinton St., Chicago, Ill. Bids were received April 23. W. G. Kirchoffer is Engr., Madison, Wis.; J. M. Philpott is Village Clerk.

CEDAR RAPIDS, IOWA.—The Cedar Rapids & Iowa City Railway & Light Co. intends to purchase a 750-KW. motor-generator set, to be used for railway purposes. G. Dawes is Pres. and Gen. Mgr.

LEAVENWORTH, KAN.—Bids are asked at the office of the Supt. of Prisons and Prisoners, Department of Justice, Washington, D. C., until May 27, for furnishing and delivering at the U. S. Penitentiary, Leavenworth, Kan., distributing panel, cables, conduit and switches and other electrical supplies. R. V. La Dow is Supt.

NEVADA CITY, COLO.—The Ethel Mining Co., Nevada City, is planning to construct a power plant, it is stated. A. Maltman is Supt.

CHATTAROY, WASH.—Plans are being prepared by George Nixon, of Spokane, to erect a power plant on the Little Spokane River about ten miles from Chattaroy to furnish electricity in the towns of Chattaroy and Deer Park. Mr. Nixon has filed an application with the County Commissioners for a franchise to erect transmission lines over the county roads to furnish electricity in the above-named towns for light, heat and power purposes.

SEATTLE, WASH.—Bids are asked until May 23, by the Regents of the State University for constructing a power plant for the University at a cost of about $80,000. William Markham is Secy.; A. H. Markwart is Arch. and Engr, University Station, Seattle.

WEST SEATTLE, WASH.—L. B. Youngs, Supt. of the Water and Lighting Dept., has had plans prepared for a $10,000 substation to be erected here.

PASADENA, CAL.—The City Council has awarded contracts for equipment for the electric lighting contracts as follows: For 15,800 pounds of No. 6 triple braid weatherproof drawn copper wire to the CALIFORNIA ELECTRIC CO., 119 East 17th St., Los Angeles, for $2,464; for poles, crossarms and braces, for $[illegible],843, to J. B. F. KIERUIFF, JR., & CO., 210 South Los Angeles St., Los Angeles. Herman Dyer is City Clerk.

ESCONDIDO, CAL.—Plans are being formed by the Escondido Mutual Water Co. to utilize the water, as it flows from its reservoir, for the production of electrical energy. It is planned to place a plant at a point below the dam where a fall of about 450 ft. can be obtained. The water will be used afterward for irrigation and domestic purposes.

GLOBE, ARIZ.—The Globe Electric & Gas Co. has been reorganized and improvements will be made to the gas and electric departments, which will cost $150,000. J. N. Porter and N. L. Amster, of Globe, are interested.

POCATELLO, IDAHO.—The Bear Lake Valley Railway & Electric Co. has decided to make improvements to its system and will construct a new power house and develop the water power of Paris Creek. James Redmond, Montpelier, Idaho, is Supt.

SANDPOINT, IDAHO.—The Pend D'Oreille Electric Co., Sandpoint, has awarded contract to the ALLIS-CHALMERS CO., Milwaukee, Wis., for a heavy duty Reynolds Corliss engine; one 225-KW. Bullock, 2-phase, 2,300-volt generator; one 4-panel switchboard fitted with General Electric instruments. Contract for boilers, condensers and pumps has been let to the PLATT IRON WORKS, of Dayton, Ohio. The plant will be equipped for an output of 425 KW. Plans are being prepared for the development of a water power, with a transmission line 44 miles in length and an output of 4,000 KW., the cost of which is estimated at $250,000. J. F. Reynaud, Sandpoint, is Mgr.

BRIDGES.

BAR HARBOR, ME.—Surveys have been made by Edgar I. Lord, C. E., Bar Harbor, for the construction of a bridge to Bar Island. W. E. Baker & Co., Engrs., 27 William St., New York, are preparing designs for a stone structure. The bridge will be 1,800 ft. long and is estimated to cost about $35,000.

SPRINGFIELD, MASS.—The Selectmen on May 2 awarded the contract for the construction of the new bridges at Southfield and Canfield district to the CANTON BRIDGE CO.

BRIDGEPORT, CONN.—The following bids were opened on May 7 for repairs to the lower bridge: F. R. Long Co., Hackensack, N. J., $11,720; Schweirs & Sutton Co., New York, $10,280; C. W. Deane Co., New York, $10,473; Berlin Construction Co., Berlin, Conn., $10,184; Coulter & McKenzie Co., Bridgeport, $9,775; The United Construction Co., Albany, N. Y., $8,995.

LE ROY, N. Y.—The Town Board has authorized the Highway Commissioner to sign the contract with the Steel Storage and Elevator Co., of Buffalo, N. Y., for the construction of the bridge to span the Oatka River on Main St., here, at $19,769.

WEST SENECA (Buffalo post-office). N. Y.—Bids were opened on May 7 by the Town Board for the construction of a bridge here. The bids submitted were as follows: Nicholas J. Kelly, $34,340; P. J. Kelly, $37,375; West Seneca Construction Co., $35,459.13; Lathrop, Shea & Henwood Co., $36,450; Consolidated Construction Co., $29,600; C. M. Findlay, $33,400.

MAMARONECK, N. Y.—The lowest bid submitted to the Board of Trustees on April 15 for constructing a highway bridge over the Mamaroneck River, including grading, filling approaches, retaining walls, abutments and steel bridge with granolithic sidewalks and base, the bridge to be 50 ft. in width with 35-ft. clear span, was that of A. W. Pote, 227 West 128th St., New York.

NEW YORK, N. Y.—Bids are asked until 2 p. m., May 21, by J. W. Stevenson, Comr. of Bridges, for the construction of the railings, on the footwalks and the lower floor, and the ornamental work on the four towers of the Blackwell's Island Bridge over the East River, between the boroughs of Manhattan and Queens.

*OSWEGO, N. Y.—Bids are asked by John Smith, Comr. of Wks., until 2 p. m., May 26, for the construction of a bridge over the Oswego River on the line of Utica St.

*LYNCHBURG, VA.—We are officially advised that the following bids were received on April 30 by the Joint Council Committee on Streets and Sewers for the construction of a reinforced-concrete viaduct on D St.: Monday Concrete Co., Knoxville, Tenn., $60,411; W. M. Torrence, $53,633; T. J. Shae, New Orleans, La., $58,344; Aberthaw Concrete Co., 8 Beacon St., Boston, Mass., $53,724; E. G. Nave Bros Co., Portsmouth, Ohio, $51,222; McCormick & Co., 14 South Broad St., Philadelphia, Pa., $51,668; Gaither Construction Co., Manassas, Va., $46,530; Faragher Engineering Co., Asheville, N. C., $43,009; J. Henry Miller, 110 Dover St., Baltimore, Md., $87,174; Blackstaff Engineering Co., Philadelphia, Pa., $51,734; Heines Bros. Co., Canal Dover, Ohio, $46,845; Merrill-Frazier Co., New York, $55,341; Scott Bros., Hardy, W. Va., $50,264; Lane Bros. Co., Lynchburg, $60,112; Baltimore Ferro Concrete Co., Glenn Bldg., Baltimore, Md., $52,194; Concrete Steel Co., Cincinnati, Ohio, $53,884; Blackford, Petit & Barber Co., Knoxville, Tenn., $44,934; Schillinger Bros. Co., Columbus, Ohio, $45,248; Charles B. Clark, Baltimore, Md., $57,015; Curtis & Shumway, Lynchburg, $55,180; W. W. Lindsay & Co., Harrison Bldg., Philadelphia, Pa., $59,900; Luck Construction Co., Roanoke, Va., $73,595; E. M. Lisle & Co., Birmingham, Ala., $66,034; Hennebique Construction Co., 1170 Broadway, New York, $81,8[illegible]0; Cramp & Co., Commonwealth Bldg., Philadelphia, Pa., $71,938. H. L. Shaner is Ch. Engr.

FENWICK, W. VA.—The Fenwick Land & Coal Co. has awarded the contract to JOSEPH FUCCY, Weston, W. Va., for constructing a bridge across the Cherry River at Fenwick, at $5,000.

*COLUMBUS, GA.—Due to a change in plan bids will not be received by the City Council on May 27 for the construction of a bridge across the Chattahoochee River at Dillingham St. No time as to when bids will be asked has as yet been decided. W. C. Campbell is Supt. Pub. Wks.

BIRMINGHAM, ALA.—The Southern Ry. Co. has awarded the contract to M. CASEY & CO. of Birmingham, for construction work on its Cane Creek extension, including two concrete piers and two abutments in the Cahaba River and frame trestle, consisting of about 225,000 ft. B. M. at about $30,000. B. Herman, Washington, D. C., is Engr. of Bridges.

COLUMBUS, OHIO.—Bids are asked by the County Commissioners until noon, June 3, for the construction of superstructures and substructures of bridges in various townships; also for a concrete arch in Clinton Township. F. M. Sayre is County Audr.

*WAKEMAN, OHIO.—Bids are asked until noon, June 4, by the Board of County Commissioners, Norwalk, Ohio, for the construction of a reinforced-concrete arch bridge over the Vermillion River. Wilbur J. Watson, Citizens' Bldg., Cleveland, Ohio, is Consulting Engr.

DAYTON, OHIO.—Bids are asked until noon, May 20, by the Board of Public Service for constructing concrete abutment, wing walls, and a reinforced concrete bridge floor over the Hydraulic race at Webb St. William A. Budroe is Clk. Bd.

ROLLING PRAIRIE, IND.—The contract has been awarded to SOUTH & SIPE, of South Bend, Ind., for the construction of a viaduct over the Lake Shore & Michigan Southern Ry. near Rolling Prairie, for the Chicago, South Bend & Northern Ry. Co.

GREENFIELD, IND.—Bids are asked by the Commissioners of Hancock County until June 1, for the repair of six bridges. C. H. Troy is County Audr.

GOSHEN, IND.—Bids are asked by the Commissioners of Elkhart County until June 4 for the repair of seven bridges and for the construction of 17 new bridges, one each in Benton, Olive, Bango, Elkhart, Goshen, Concord and York Townships, and two each in Union, Clinton, Jackson, Washington and Jefferson Townships. D. O. Batchler is County Audr.

MUNCIE, IND.—The Commissioners of Delaware County have let the contract for the construction of two bridges, one across White River at Smithville, and one across the Mississinewa River at Black's Mill to the INDIANA BRIDGE CO., of Muncie.

SOUTH BEND, IND.—Bids are asked until 11 a. m., May 18, by the County Commissioners for the construction of six concrete culverts, one steel beam bridge and wing wall on the Broadway culvert over Bowman Creek.

BENTON HARBOR, MICH.—Bids are asked until 2 p. m., May 21, by the Joint Bridge Committee of the cities of Benton Harbor and St. Joseph, Mich., for the construction of a street and electric railway bridge over the St. Joseph River, 312 ft. long, consisting of one swing span 200 ft. long and two equal approach spans, a roadway 32 ft. wide, and two sidewalks each 7 ft. wide; also substructure of same. J. W. Pearl is Engr., Benton Harbor, Mich.

ESCANABA, MICH.—Bids are asked by A. P. Smith, County Clk., Delta County, until noon, May 15, for the construction of two steel bridges, with concrete abutments.

EVANSTON, ILL.—Bids are asked by the Sanitary District of Chicago, American Trust Bldg., Chicago, Ill., until noon, May 27, for the construction of the substructures and the erection only of the superstructures of two highway bridges, all situated between Church St. and Dodge Ave., Evanston, Ill. I. J. Bryan is Clk. Advertised last week.

HAHNAMAN, ILL. — THE CLINTON BRIDGE & IRON WORKS was awarded the contract on April 25 for constructing two bridges over Green River in Hahnaman at $6,000. One bridge will be 134 ft. long built on tubular piers, the other 64 ft. long and similar in design, both being truss structures.

MILWAUKEE, WIS.—JONES BROS., of Minneapolis, Minn., have been awarded contract by the Wisconsin Central Ry Co. for the construction of a trestle and underground crossing at $50,000 and about $100,000 respectively. The trestle will be over the Northern Pacific Ry. and the underground crossing will be under the Great Northern Ry. R. W. Cattermole, Milwaukee, is Engr. M. W.

MINNEAPOLIS, MINN.—Bids are asked until 11 a. m., May 25, by the County Commissioners of Hennepin County for constructing Bridge No. 330. Hugh R. Scott is County Audr.

HELENA, MONT.—THE MINNEAPOLIS STEEL & BRIDGE CO., Minneapolis, Minn., was awarded the contract on April 29 by the County Commissioners at $8,585 for repairing the Trout Creek bridge.

MEXICO, MO.—THE PAN-AMERICAN BRIDGE CO., of New Castle, Ind., has been awarded the contract by Audrain County for construction of eight steel bridges, at $4,900.

ARDMORE, OKLA.—Bids are asked until May 16 by the County Commissioners for the construction of a steel bridge across Big Hickory Creek. William B. Frame is County Clerk.

HOOD RIVER, ORE.—The COLUMBIA BRIDGE CO. was awarded the contract on April 28 by the city for the construction of a steel bridge across Hood River, at $6,967.

RENO, NEV.—The City Council on April 29 awarded the contract for the construction of the Second St. bridge to the SAN FRANCISCO BRIDGE CO., Monadnock Bldg., San Francisco, Cal., at about $25,000.

OGDEN, UTAH.—We are officially advised that the date for opening bids for the construction of the 65-ft. span reinforced concrete arch bridge over the Ogden River has been extended from May 11 to May 18. A. F. Parker is City Engr.

MOUNT FORREST, ONT.—DICKENSON BROS. have been awarded the contract for the construction of the steel bridge over the Saugueen River at $5,760.

ST. THOMAS, ONT.—The following contracts have been awarded: For the construction of the 116-ft. concrete arch over Kettle Creek, estimated concrete, 1,600 cu. yds., to A. E. PONSFORD, at $9,399, exclusive of steel of reinforcing; for the 75-ft. arch at Catfish Creek, to same, at $3,700 under same conditions. J. A. Bell is City and County Engr.

Bids are asked until noon, May 15, by J. A. Bell, City and County Engr., for a reinforced-concrete bridge over Kettle Creek, known as the Brewery Bridge, consisting of two concrete arch spans, 75 ft. each, and a reinforced concrete bridge over Kettle Creek known as Queen's Bridge, consisting of two concrete arch spans, 80 ft. each.

BUILDINGS.

(* *denotes that this work is advertised in Engineering News.*)

ÇALAIS, ME.—Bids were opened as follows May 11, at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office at Calais, Me.: Otto Nelson, Bangor, Me., $69,221; Wheaton Building & Lumber Co., Putnam, Conn., $69,842; W. H. Fissell & Co., New York, $66,200; Woodberry & Leighton, Boston, Mass., $69,436.

FALL RIVER, MASS.—We are officially advised that plans for the court-house to be built here will be ready for bids in about a week. It will be of common brick fireproof construction, with terra-cotta, sandstone and granite trimmings. The building will contain vaults, steam heating, electric and gas lighting, rubber floors, copper doors, etc. Louis G. Destremps & Son, Fall River, are Archs.

SPRINGFIELD, MASS.—Bids are asked until June 1, to construct a library to cost $300,000. The structure will be 220 × 86 ft., constructed of granite, marble and terra-cotta and will have two stories and basement. It will have a fireproof interior and a marble exterior. Edward L. Tilton, 32 Broadway, New York, N. Y., is Arch.; H. C. Wellman is Librarian, Springfield. Bids on equipment will be taken later.

BRISTOL, CONN.—Bids are asked until 8 p. m., May 25, by C. L. Wooding, Secy., for constructing a 2-story brick addition to the high school building.

DANBURY, CONN.—We are officially advised that the contract to construct a church for the First Ecclesiastical Society, Danbury, has been let to the H. WALES LINES CO., 134 State St., Meriden, Conn. Howells & Stokes, 100 William St., New York, N. Y., are Archs.

P. L. Hooper, Arch., New York, has prepared preliminary plans for a 1-story bank building for the Danbury Savings Bank, Danbury, to cost $100,000.

HARTFORD, CONN.—The plans of Cram, Goodhue & Ferguson, Archs., 170 Fifth Ave., New York, for the St. John Episcopal Church have been accepted and the contract for the construction has been awarded to CHARLES B. ANDRUS & SON, 902 Main St., Hartford. The price is approximately $63,000.

BUFFALO, N. Y.—George Cary, Arch., 184 Delaware Ave., has prepared plans for a 3-story brick residence, with marble trimmings, to be erected on Rumsey Road near the Lincoln Parkway entrance to Delaware Park, for Henry Adsit Bull. Estimated cost, $60,000.

Plans have been completed by McCreary, Wood & Bradney, Archs., Mutual Life Bldg., for a brick and stone residence to be built by Willis K. Jackson at the corner of Delaware Ave. and Barker St. It will have three stories. Approximate cost, $60,000.

George F. Newton, Arch., 6 Beacon St., Boston, Mass., has been retained to prepare plans for a hospital building for the Homeopathic Hospital Association, William H. Crosby, Chn. Bldg. Com., Buffalo. Cost, $125,000.

NEW YORK, N. Y.—Hill & Stout, Archs., 1123 Broadway, advises us that contract has been let to the THOMPSON-STARRETT CO., 49 Wall St., to construct an 11-story brick and stone fireproof loft building at 49 West 29th St., for Edmund Coffin, 34 Pine St. The structure will measure 45 × 83.10 ft., and will cost $130,000.

Bids are asked until 10 a. m., May 19, by Theodore A. Bingham, Police Comr., for making and completing alterations, general repairs and improvements to the training stables of the police department of the City of New York, located on the southerly side of North Hempstead Turnpike, 1,400 ft. east of Jamaica Ave., Flushing, Boro. of Queens.

We are officially advised that estimates are being taken by Wm. J. Casey, 1953 Seventh Ave., for three 5-story tenements he is to build at 184th St., 100 ft. west of St. Nicholas Ave. The buildings will measure 41.8x86.11 ft. and will cost altogether $150,000. Neville & Bagge, 217 West 125th St., are Archs.

NEW YORK, N. Y.—We are advised by Delano & Aldrich, Archs., 4 East 39th St., that they will take estimates in about a week for a 12-story brick and stone loft building, to be built at 15 West 38th St., for Mary L. Barbey, 4 East 39th St. The building will measure 56.3 × 90.2 ft. and will cost $150,000.

Neville & Bagge, Archs., 217 West 125th St., advise us that the West Twenty-sixth St. Corporation, 725 Broadway, intends to erect a 12-story brick and stone store and loft building, 100 × 90.4, at 37 West 26th St. Estimated cost, $400,000. Estimates are being received by the owners.

NEW YORK, N. Y.—Bids were received as follows May 12, at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of an extension and enlargement of the assay office at New York: Wm. F. Holding, 2426 Davison Ave., New York, $448,000; Daniel J. Ryan, foot of 23d St., Brooklyn, $398,000; Calumet Construction Co., 15 East 59th St., New York, $368,821; North-Eastern Construction Co., 225 Fifth Ave., New York, $364,000; Turner Construction Co., 11 Broadway, New York, $578,900; Cramp & Co., Philadelphia, $347,948; Luke A. Burke & Sons Co., 25 West 42d St., New York, $443,000; P. J. Carlin Construction Co., 16 East 23d St., New York, $338,250; Richard E. Herringham, New York, $421,000; F. T. Nesbit & Co., Inc., 116 Nassau St., New York, $381,000; $388,500.

Bids are asked until 11 a. m., May 27, by Bird S. Coler, Pres. Boro. of Brooklyn, for alterations, improvements and additions to the Kings County Court-house building, situated at the junction of Joralemon and Fulton Sts., Boro. of Brooklyn, the City of New York.

Bids are asked until 11 a. m., May 25, by C. B. J. Snyder, Supt. of School Bldgs., Dept of Education, for sliding doors, repairs, etc., at Public School No. 10, Eagle Ave. and 163d St., Boro. of the Bronx; for fireproof main stairs at Public School No. 51, 519 West 44th St., and Public School Uo. 84, 430 West 50th St., Boro. of Manhattan; for alterations, repairs, etc., to Public Schools Nos. 60, 61, 63, 64, 65 and 66, Boro. of Queens.

The following bids were received on May 7, by Allen N. Spooner, Comr. of Docks and Ferries, for preparing for and building a new ferry house at the Manhattan terminal of the Staten Island ferry at the foot of Whitehall St., East River: Luke A. Burke Sons & Co., 25 West 42d St., $494,000; Snare & Triest Co., 143 Liberty St., $464,640; P. J. Carlin & Co., 16 East 23d St., $559,000; Post & McCord, 40 East 23d St., $509,900; Phoenix Construction Co., 13 Park Row, $525,000; George B. Spearin, 90 West St., $503,989; Northeastern Construction Co., 225 Fifth Ave., $494,000; Charles Meads & Co., 299 Broadway, $476,000; John S. Hopper, 215 West 125th St., $508,374.

*FORT WOOD (New York post-office), N. Y.—Bids are asked until 10.45 a. m., June 9, by G. C. Burnell, Constr. Q. M., for furnishing and installing, complete, an electric elevator engine in Signal Corps storehouse at this port

POUGHKEEPSIE, N. Y.—Bids are asked until May 15, by Jackson & Rosencrans, 31 Union Sq., West, for a Y. M. C. A. building to be constructed here at a cost of about $150,000.

General contract for constructing a 3-story chemical laboratory for Vassar College, Poughkeepsie, has been let to J. W. BISHOP. Chappell & Bosworth, 41 West 24th St., New York, N. Y., are Archs.

DUNKIRK, N. Y.—The general contract has been let by J. Mills Platt, Arch., 921 Chamber of Commerce Bldg., Rochester, to J. A. TAYLOR, Dunkirk, N. Y., and masonry to PETER MEISTER & SON, Dunkirk, for a 4-story press brick and stone-trimmed Masonic building for the Masonic Building Co., Dunkirk. Cost, $85,000.

BUFFALO, N. Y.—Lansing & Beierl, Archs., 371 Pearl St., Buffalo, have let general contract to STOKES BROS., Brisbane Bldg., for a 3-story and basement press brick, stone-trimmed school building, 66 × 164 ft., to be erected at O'Connell Ave. and Alabama St., for Our Lady of Perpetual Help Congregation, Sandusky and Alabama Sts. Cost, $65,000.

George F. Newton, Arch., 6 Beacon St., Boston, has been selected to prepare plans for the hospital building to be erected at Delavan & Linwood Aves., Buffalo, for the Homeopathic Hospital Association, 74 Cottage St. William H. Crosby is Chn. Bldg. Com. Estimated cost, $125,000.

Bids are asked until May 25, by Charles Mosiers, 1266 Seneca St., for constructing two 3-story apartment buildings, 80 × 80 ft., to be built at the corner of Linwood Ave. and Barker St. Cost, $100,000. Esenwein & Johnson, Ellicott Sq. Bldg., are Archs.

*WEST POINT, N. Y.—Bids are asked until noon, June 4, by the Quartermaster, West Point, for erecting one set of double civilians' quarters at West Point.

JERSEY CITY, N. J.—The A. J. ROBINSON CO., 123 East 23d St., New York, N. Y., has contract to erect an addition to the 4-story amusement building for the People's Palace, Jersey City. Cost, $100,000.

*FORT HANCOCK (Sandy Hook post-office), N. J.—Plans and specifications for proposed gymnasium to be built at this post are on file at the office of Engineering News, New York. Bids are asked until May 29.

HOBOKEN, N. J.—The following contracts have been let by G. C. Brokhaus, 402 Washington St., Hoboken: Masonry, to JAMES F. CONNELLY CONSTRUCTION CO., 226 Pavonia Ave., Jersey City, N. J., carpenter work to MARTIN, HACKETT & SONS, Summitt Ave., Jersey City, and plumbing to WILLIAM W. READ, 607 Washington St., Hoboken, for a 3-story brick school building, 75 × 87 ft., and a 3-story brick convent, 35 × 40 ft., on Jackson St., between First and Ferry Sts., for St. Joseph's Parochial School. Cost, $90,000.

ATLANTIC CITY, N. J.—Watson, Huckel & Co., Archs., 1211 Walnut St., Philadelphia, have finished plans for a 7-story and roof garden hotel, to be built in Atlantic City for the Federal Realty Co. of New Jersey. The hotel, which will be of steel frame, brick and stone, with concrete floors, fireproof throughout, will be erected on a lot 250 × 500 ft. It will be known as the Plateau Hotel. Frank E. Glover is Pres.; C. F. Ware is Vice-Pres. and Albert V. Peterson, Secy., 119 South Fourth St., Philadelphia.

NEW CASTLE, PA.—W. G. Eckles, Arch., Lawrence Trust Bldg., New Castle Pa., advises us that bids will be received until about June 10, for constructing a 3-story fireproof high school, 200 × 175 ft., to cost about $200,000.

PHILADELPHIA, PA.—We are officially advised the following are the bids received on April 30, for building the Mikveh Israel

Synagogue, Philadelphia, Pa.: Swallow & Howes, 500 Fifth Ave., New York, $65,600; Cramp & Co., $68,528; J. E. Pennock, $69,787; McCall & Co., $70,700; Steele & Co., $68,500; R. P. Wells, $76,719; Doyle & Co., $77,853; Raff Co., $72,950; W. R. Dougherty, $75,250; Sax & Abbott, $74,560; J. Myers Son, $80,777; Thomas Reilly, Pittsburg, $77,265; J. D. Doak, $79,256; Pennsylvania Construction Co., $73,150; Lynch Bros., $76,942. Revised bids were received May 4, as follows: Swallow & Howes, $58,754; McCall & Co., $59,948; James G. Doak, $59,960; Cramp & Co., $61,175; J. E. Pennock, $61,750; Lynch Bros., $62,195; Steele & Co., $62,700. Pilcher & Tachau, 113 East 19th St., New York, are Archs.

PHILADELPHIA, PA.—The contract has been let by Philip H. Johnson, Land Title Bldg., to DOYLE & CO., 1519 Sansom St., for several 1, 2 and 3-story buildings for the State Homeopathic Hospital for Insane. Cost, $200,000.

The plans of J. B. McElfatrick & Son, 1402 Broadway, New York, have been selected by Oscar Hammerstein for his opera house to be built here. The building will be built at Poplar, Broad and Carlisle Sts., and will front on Poplar St.

A permit has been granted MELODY & KEATING, Bailey Bldg., for the erection of the superstructure of St. Francis de Sales Roman Catholic Church at the corner of 47th St. and Springfield Ave. It will be of stone, with elaborate interior ornamentation, and will cost $176,692. Henry D. Dagit is Arch., 435 Chestnut St.

Wilson, Harris & Richards, Archs., Drexel Bldg., have let general contract to H. E. HAVENS & CO., Girard Bldg., for alterations and additions to the 5-story Academy of Natural Sciences. Cost, $100,000.

PHILADELPHIA, PA.—L. Frank Hudson has been granted a permit to erect 104 dwellings, each two stories high, in the 40th Ward for Timothy Gallagher, 55th and Springfield Sts., at a cost of about $139,800.

The Knights of Columbus have decided to build a $400,000 building. The site extends 100 ft. on Broad St., and 160 on Poplar St., to Watts St. The plans prepared by Emile G. Perrot, 1200 Chestnut St., call for a 4-story structure with an auditorium, ballroom, gymnasium, lodge rooms, etc.

Solomon S. Asher & Son, proprietors of the Natatorium at 219 South Broad St., will proceed at once with the erection of a natatorium and dance and banquet hall on the lot at 221 South Broad St. The owners have under consideration plans for an ornamental 4-story building, of brick and concrete, with a swimming pool on the first floor. On the second floor will be a dance hall, and on the third floor a banquet hall. The whole of the fourth floor will be devoted to culinary purposes. The building, which will measure 33 × 144 ft., will cost about $250,000. It is expected that work will be begun on it early in June.

PITTSBURG, PA.—Janssen & Abbott, Archs., are receiving new bids, according to revised plans, for an addition to Fort Pitt Hotel, for the Fort Pitt Improvement Co., Tenth St. and Penn Ave. Cost, $400,000.

McKEES ROCKS, PA.—Bids are asked until May 25, for constructing a public school on May Ave., McKees Rocks. F. C. Sauer, 804 Penn Ave., Pittsburg, Pa., is Arch.

WASHINGTON, D. C.—Elliott Woods, Supt. of the U. S. Capitol Building and Grounds, Washington, has awarded contract for furnishing bronze stairways in the new Senate Office Building, Washington, D. C., for the lump sum of $51,800, to the FLOUR CITY ORNAMENTAL IRON WORKS, 2637 27th Ave., South, Minneapolis, Minn.

Bids are asked until May 25, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for repairs to the glass roof of the Post-office Department Building.

The opening of bids on interior woodwork for the Senate Office Building, Washington, D. C., which were asked by Elliott Woods, Supt. of the U. S. Capitol Building and Grounds, Washington, D. C., for noon, May 9, has been postponed to the same hour, May 16.

FORT MONROE, VA.—The Quartermaster General, U. S. A., Washington, D. C., has awarded contract to the FULLER CONSTRUCTION CO., Munsey Bldg., Washington, D. C., for the construction of school buildings at Fort Monroe: Officers' school building, $113,000; enlisted men's school building, $46,400; steam heating in same, $2,370; steam heating in officers' building, $5,860; electric wiring and light fixtures in same, $3,600; electric elevator in same, $4,250. Time, 11 months.

BLUEFIELD, W. VA.—Bids were received as follows May 6, at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., in answer to a request for supplemental proposals in connection with the construction of the post-office at Bluefield, W. Va.: D. J. Phipps, Newport News, Va., Original, $79,917, addition, $12,329; Jones & Adams, Lynchburg, Va., original, $82,279; addition, $16,613; Holliday & Crouse Greensboro, N. C., original, $78,900; addition, $20,457.

WESTON, W. VA.—The State Insane Asylum will erect dining hall, 400 × 60 ft.; three stories high, of concrete or brick. The Legislature appropriated $85,000, but the completed building is estimated to cost $150,000. James F. Thompson is Director, Martinsburg, W. Va. An architect has not been selected.

PENSACOLA, FLA.—Plans for the American National Bank building will be completed about May 15 by Carpenter & Blair, 475 Fifth Ave., New York. They call for a brick and terra-cotta building, fireproof, ten stories, 92 × 61 ft., to contain bank and offices. Cost, about $200,000.

*ROLLING FORK, MISS.—Bids are asked by George W. West, Clerk of the Bd. of Superv. of Sharkey County, until noon, June 1, for building another story to the jail and for new cages for the same.

LOUISVILLE, KY.—We are officially advised that the contract for constructing a reinforced concrete stock pavilion, 395 × 206 ft., for the Kentucky State Fair Board, Paul Jones Bldg., has been let to the E. G. NAVE BROS. CO., of Portsmouth, Ohio. A. S. & O. G. Joseph, Louisville, are Archs.

LOUISVILLE, KY.—The Louisville & Nashville R. R. Co. has had plans prepared for a station to be built here at a cost of about $90,000. The station is to be built of pressed brick and will occupy a site at Baxter Ave. and Beargrass Creek. W. H. Courtenay is Ch. Engr.; A. Sneller is Inspector of Bridges and Buildings, Louisville.

COLUMBUS, OHIO.—Plans have been prepared by Meyer J. Sturm, 84 La Salle St., Chicago, Ill., for a 6-story hospital building to be erected for the Grant Hospital, at a cost of $150,000. Dr. J. F. Baldwin, 125 Grant Ave., is interested.

MADISONVILLE (Cincinnati post-office), OHIO.—Bids are asked until May 15 by the Board of Education for a 3-story brick school, 72 × 110 ft., with wings 42 x 140 ft. Cost, $100,000. J. F. Klein is Clerk; Bausmith & Drainie, Johnston Bldg., Cincinnati, are Archs.

LOGANSPORT, IND.—The following contracts have been let for a 4-story brick and stone hospital building, 160 × 170 ft., for the Sisters of St. Joseph, Joseph Hartz, Supt. of Construction: Masonry, to HARRY BARNES, Linden Ave., Logansport; carpenter work, to M. V. TYSON, Melbourne, Ave., Logansport, and steam heat and plumbing to HOLLAND & WHITEHEAD, Logansport. Cost, $110,000.

GARY, IND.—The STANDARD CONTRACTING CO., First National Bank Bldg., Chicago, Ill., has secured the contract for erecting the Emerson School, at $192,000, without enameled brick, and $2,800 to be added if enameled brick is used. The other bids received for this work, without the enameled brick, are as follows: George Rickman's Sons Co., Kalamazoo, Mich., $194,164: E. C. Gerhard Building Co., Victoria Bldg., St. Louis, Mo., $191,777; C L. Gray Construction Co., Victoria Bldg., St. Louis, Mo., $196,300; Eric Lund, Hammond, Ind., $207,000; Fred Bocke, 1839 South Ninth St., St. Louis, Mo., $208,000; J. C. Robinson & Sons, Rector Bldg., Chicago, Ill., $209,000; B. M. Zadeck Co., Merchants' Loan & Trust Bldg., Chicago, Ill., $222,222; Southern Contracting Co., Mermond & Jackard Bldg., St. Louis, Mo., $220,000; Hiram Lloyd Building Co., Odd Fellows' Bldg., St. Louis, Mo., $224,517; Clarke Contracting Co., Gary, $229,000; George Hinchliff Co., Security Bldg., Chicago, $227,500; R. A. Steininger Construction Co., Victoria Bldg., St. Louis, $231,119; Gallagher & Williams, Gary, $230,999; Schillinger Bros., Gary, $234,257; R. P. Strandberg Co., 159 La Salle St., Chicago, Ill., $238,974; E. M. Bent, Marquette Bldg., Chicago, $246,650; Thompson-Starrett Co., Fisher Bldg., Chicago, $251,182; Schmidt Bros., Gary, $264,869; Ingwald Moe, Gary, $257,000; H. G. Christman Co., South Bend, Ind., $275,350; Lanquist & Illsley Co., 393 N. Clarke St., Chicago, $292,823; Falkanau Contracting Co., Gary, $304,987; Nelson-Secord Contracting Co., 11038 S. Halsted St., Chicago, Ill., $241,378. William B. Ittner, Ninth and Locust Sts., St. Louis, Mo., is Arch. W. A. Wirt is Supt. Bd. of Education.

CHICAGO, ILL.—James O. Hayworth, Harvester Bldg., has selected C. A. Eckstrom, 131 La Salle St., to prepare plans for a 7-story theater and office building to be built on Michigan Ave. The structure will measure 80 × 170 ft. and will cost $500,000.

*CROOKSTON, MINN.—All bids opened at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, on April 28, for the construction of the post-office at Crookston, have been rejected as in excess of the amount available.

ST. PAUL, MINN.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has rejected all bids received on May 5 for the construction of a tower for the St. Paul post-office, as in excess of the appropriation. The lowest bid was submitted by W. W. Bowe, St. Paul, at $123,000. Noted on May 7.

FORT LEAVENWORTH, KAN.—Bids are asked until 11 a. m., May 22, by Capt. William D. Davis, Q. M., for constructing the following buildings at this post, including plumbing, heating, electric wiring and electric lighting fixtures. Two sets of field officers' quarters and three double sets Captains' quarters.

NEWTON, KAN.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 17, for construction (including plumbing, gas-piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Newton.

WATERTOWN, S. DAK.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office building at Watertown, S. Dak., to the NORTHERN CONSTRUCTION CO., Milwaukee, Wis., at $72,555. Time, July 1, 1909. Noted on April 30.

KANSAS CITY, MO.—The general contract has been let by Howe, Hoit & Cutler, Archs., 315 East Tenth St., to M. J. MORRISON, 2412 East 23d St., for a 3-story and basement hospital building for the Sisters of St. Mary. Cost, $200,000.

FORT WORTH, TEX.—The Byers Opera House Co. has been incorporated by A. T. Byers, C. I. Dickinson, W. G. Newby and others to erect opera house, 100 × 150 ft., with a stage 40 × 70 ft. Cost, $100,000. The building will have steam heat. Sanguinet & Staats, Fort Worth, are Archs.

SAN ANTONIO, TEX.—C. C. Gibbs will erect an 8-story office building, fronting 42 ft. on Houston St. and 126 ft. on Ave. D. Bids will be received in July. Sanguinet & Staats, F. & M. Bank Bldg., Fort Worth, Tex., will prepare plans.

SEATTLE, WASH.—The contract has been let for the construction of the 6-story Smith Building on the corner of Fifth Ave. and Union St., to FRANK P. ALLEN, JR., Dir. of Works of the Alaska-Yukon-Pacific Exposition. Work on the structure will begin soon. The structure above the first floor, which will be used for stores, will be used for offices. There will be six stores on the ground floor. The building is to cost between $100,000 and $125,000. Cutter & Malmgren, Exchange Bank Bldg., Spokane, Wash.

*SEATTLE, WASH.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 11, for installing an elevator plant in the U. S. court-house, custom-house and post-office, Seattle.

PORTLAND, ORE.—Contract has been let to the NORTHWEST BRIDGE CO. for constructing the proposed Y. M. C. A. building at Sixth and Taylor Sts.

EUGENE, ORE.—The only bids received on May 9, at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office building at Eugene, Ore., was submitted by George C. Mourer, Salem, Ore., at $45,000. Time, Sept. 1, 1909.

STOCKTON, CAL.—The Stockton Investment Co. has secured a permit to erect a hotel to cost $250,000. The structure will be of reinforced concrete construction and fireproof.

PASADENA, CAL.—F. P. Burnham, of South Pasadena, has prepared plans for a building to be erected for the members of the First Christian Science Church at a cost of about $112,000.

*PROVO, UTAH.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 22, for construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Provo.

WINNIPEG, MAN.—PETER LYALL & SONS, 88 King St., Montreal, Que., have the contract for the erection of the Union depot here for the Canadian Northern and Grand Trunk Pacific R. R. companies. Estimated cost, $2,000,000.

VANCOUVER, B. C.—The contract for the erection of the Winch Building has been awarded to the NATIONAL CONSTRUCTION CO. at $380,000.

VANCOUVER, B. C.—J. W. Weart, Mgr. of The Imperial Trust Co., announces that bids will be received in October for the erection of an office building, to cost about $300,000.

WATER SUPPLY—IRRIGATION.

(* *denotes that this work is advertised in Engineering News.*)

NEWBURYPORT, MASS.—M. CASHMAN, Newburyport, was awarded the contract for constructing the pumping station at the Artichoke River at $3,241.

GREAT BARRINGTON, MASS.—The Water Commissioners have awarded the contract for digging and filling the ditch for laying the Main St. water pipe north from the present pavement to JOHN L. LARKIN, of Great Barrington, at 18 cts. per ft.

*OWEGO, N. Y.—Bids are asked by Walter Wood, Secy., Owego W.-Wks., until noon, May 29, for the construction complete of a reservoir built of earth with concrete lining and having a capacity of about 2,000,000 gallons. T. Chalkley Hatton is Engr., Wilmington, Del.

*YONKERS, N. Y.—Bids are asked until 8 p. m., June 1, by the Board of Contract and Supply for pipe and castings as follows, with the privilege of increasing or diminishing the amount 50%: Flanged pipe and specials: 20,400 lbs. of 20 and 22-in. flanged pipe; 5,600 lbs. of 20 and 22-in. flanged specials; bell and spigot pipe: 7 tons of 30-in., 88 tons of 24-in., 14 tons of 12-in., 210 tons of 6-in. pipe; 27,000 lbs. of 24-in. specials, to be delivered on the Public Dock in the City of Yonkers, on or before July 15, 1908.

OSWEGO, N. Y.—The following bids were opened on April 21 by the Department of Water for furnishing a high-duty horizontal-compound, condensing-crank and fly-wheel engine with a daily capacity of 5,000,000 gallons: Allis-Chalmers Co., Milwaukee, Wis., four bids, $20,365, $18,245, $20,040 and $19,010; Snow Steam Pump Co., Buffalo, N. Y., $23,700; Wilson Snyder Co., Pittsburg, Pa., $20,340; Laidlaw-Dunn-Gordon, Cincinnati, Ohio, $18,535; Epping-Carpenter Co., Pittsburg, Pa., $21,000; Fred M. Prescott Co., Milwaukee, Wis., $23,380; Platt Iron Wks., New York City, two bids, $26,000 and $24,500; Nordberg Mfg. Co., Milwaukee, Wis., $26,932; Bethlehem Steel Co., South Bethlehem, Pa., two bids, $26,300 and $28,860; D'Olier Engineering Co., 121 South Eleventh St., Philadelphia, Pa., $26,500; Wm. Todd Co., Youngstown, Ohio, $28,900. F. W. Ormsby is Secy.

*NEW YORK, N. Y.—Bids were received as follows on May 12 by the Board of Water Supply for the construction of the Wallkill pressure tunnel, being a portion of Wallkill division of the Catskill aqueduct, crossing under the valley of the Wallkill River, in the towns of New Paltz and Gardiner, Ulster County, New York: S. Pearson & Son, First Ave. and 33d St., New York, $3,305,000; MacArthur Bros. Co., 11 Pine St., New York, $4,352,000; T. A. Gillespie Co., 90 West St., New York, $4,685,000; Bradley Contracting Co., 172 Bowery, New York, $25,003,730,000.

*BLOOMFIELD, N J.—We are officially advised that M. J. DRUMMOND & CO. were awarded the contract on May 5 by the Town Council for furnishing about 5,000 lin. ft. of 4-in., 6-in. and 8-in. B. & S. coated water pipe, the 4-in. pipe to weigh about 22 lbs. per ft.; the 6-in. pipe to weigh about 30 lbs. per ft.; the 8-in. pipe to weigh about 48 lbs. per ft.; quotations being made f. o. b. cars Bloomfield, N. J., and delivering in carload lots, as required.

MOUNTVILLE, PA.—The Council on April 30 awarded the contract for the construction of the water plant to BRUBAKER & CO., of Lancaster, Pa., at $15,587.

GRAHAM, VA.—The city has voted $20,000 of bonds for the construction of water-works.

*FORT MONROE, VA.—Plans and specifications are on file at the office of Engineering News, New York, for erecting four 50,000-gallon steel tanks on parapet. Bids are asked until June 1.

GADSDEN, ALA.—James N. Hazlehurst, Atlanta, Ga., is preparing plans for the construction of water-works, consisting of a complete pumping plant, coagulating basin, filters, etc. Estimated cost, [illegible],000.

POPLARVILLE, MISS.—The city has voted $10,000 of bonds for the extension of the water and light systems.

CARROLLTON, KY.—Bids are asked until May 25 by W. F. Schuerman, Mayor, for reconstructing and improving the water and light plants.

COLUMBUS, OHIO.—Bids are asked until May 18 by the Board of Public Service for furnishing about 600 tons of [illegible] and 8-in. c.-i. pipe; 20 tons of 6 and 8-in. special castings; 15,000 ft. of ¾-in. galvanized iron pipe; 2,000 stop boxes, for use of the Water Department. E. W. Hirsch is Secy. Bd.

CINCINNATI, OHIO.—Bids are asked until noon, June 2, by the Commissioners of Water-Works, for furnishing and delivering cast-iron pipe and special castings, for the water mains required for the extension and betterment of the water distribution system. Elmer G. Prior is Clk. Comrs.

DAYTON, OHIO.—Bids are asked until May 18 by W. A. Budroe, Clk. Bd. Pub. Serv., for furnishing about 20 tons of 4-in., 100 tons of 8-in., 200 tons of 6-in., 100 tons of 10-in., 50 tons of 12-in. c.-i. pipe and 20 tons of specials and 10 tons of refined pig lead.

DAYTON, OHIO.—THE HENRY R. WORTHINGTON CO., 115 Broadway, New York, has been awarded the contract by the city for furnishing 500 ⅝-in., 25 ¾-in., and ten 1-in. water meters, at about $4,000.

MUSKEGON, MICH.—The City Council has rejected all bids for furnishing to the city 500 water-meters. A. Dixon, Supt. of Water, will ask for new bids.

TRENTON, ILL.—Bids are asked until May 16 by the City Clerk for furnishing and installing a water-works system, including pipe line, hydrants, valves, concrete reservoir, air compressor, air lift pumps and pumping machinery.

GERMANTOWN, ILL.—Bids will soon be asked by the Village Trustees for the construction of water-works. Estimated cost, $8,000.

WAUSAU, WIS.—The Knox Engineering Co., of Chicago, Ill., has been retained to prepare plans for the construction of a water power plant estimated to cost $100,000.

MILWAUKEE, WIS.—The contract for furnishing one 20-in., on 24-in., and twelve 36-in. gate valves has been awarded by the city to the ROE-STEPHENS MFG. CO., at $5,150. Charles G. Poetsch is City Engr.

EAST GRAND FORKS, MINN.—The city has voted to issue $50,000 of bonds for constructing water-works.

GRAND ISLAND, NEB.—The City has awarded the contract to JOSEPH BURNS, of Lincoln, Neb., for the material, work and machinery necessary for a guaranteed supply of 2,000,000 gallons of water daily at about $12,500.

THE CONCRETE STONE CO., of Grand Island, secured the contract for the construction of a reservoir in the present pump-pit at about $3,800.

GRAND FORKS, N. DAK.—Bids are asked until June 1 by the City Council for constructing water mains in portions of Chestnut, Walnut and Cottonwood Sts. W. V. O'Connor is City Audr.

BELLE FOURCHE, S. DAK.—In connection with the South Canal, Belle Fourche irrigation project, South Dakota, the following contracts have been awarded: LEONARD SEITZ, of Vale, S. Dak., for the construction of Section 2A, consisting of about 42,100 cu. yds. of excavation, $8,052; J. W. McNEEL, of North Platte, Neb., for the construction of Section 2B, consisting of about 50,000 cu. yds. of excavation, $9,088.

FORT D. A. RUSSELL, WYO.—W. W. KEEFE, of Cheyenne, has been awarded the contract for laying water mains here, at $7,462.

*NEOSHO, MO.—Plans and specifications are on file at the office of Engineering News, New York, for the construction of a reservoir and pipe system at the U. S. Fisheries Station, here. Bids are asked until June 6. George M. Bowers is Comr. of Fisheries, Department of Commerce and Labor, Washington, D. C.

ST. LOUIS, MO.—The following contracts were awarded on May 4 by the Water Department: For the reconstruction of boiler house, Bissell's Point, pumping station No. 2, HEINE BOILER CO., $26,488; water pipe, U. S. PIPE CO., $102,960; specials, same firm, $17,400; stop valves, ROE FOUNDRY & MFG. Co., $8,769; fire plugs, AMERICAN FOUNDRY & MFG. CO., $23,912; laying pipe, south district, CITY CONSTRUCTION CO., $17,693; north district, FRUIN-COLNON CO., $24,316. The total estimate for the work was $259,186, or nearly $40,000 more than the lowest bids.

GALVESTON, TEX.—The city has voted $100,000 of bonds for the construction of a duplicate water main across Galveston Bay.

*DALLAS, TEX.—Bids are asked by the O'Neil Engineering Co., Dallas, until May 20, for the purchase of cast-iron water pipe, electrically operated triplex pumps and their motors, hydrants and valves and other water-works supplies.

*CANON CITY, COLO.—Specifications are on file at the office of Engineering News, New York, for constructing about eight miles of 26 or 30-in. conduit of either steel or continuous wood stave pipe, a settling basin, filter, two clear water reservoirs and accessories for the Canon City water-works system. Bids are asked until May 20. L. D. Dawson is City Clk.

SEATTLE, WASH.—THE INTERNATIONAL CONTRACT CO., New York Block, Seattle, has been awarded the contract for laying water mains in Third Ave., N. W., at $13,443. R. H. Thomson is City Engr.

FORT MASON (San Francisco post-office), CAL.—Bids are asked until 11 a. m., June 1, by Maj. George McK. Williamson, Q. M., U. S. A., for constructing a pumping station, smokestack, boilers, pumps, reservoir, flume and pipe at the Presidio of San Francisco.

•KIMBERLY, NEV.—Bids are asked until 2 p. m., June 9, by the Giroux Consolidated Mines Co., 42 Broadway, New York, for laying 70,000 ft. of 8-in. wrought iron or steel pipe from the pumping station on the Steptoe Creek to the company's mines and townsite at Kimberly, Nev., and the construction of a 4,500,000-gallon reservoir. Plans and specifications can be secured at the office of Alexander Potter, Consulting Engr., 143 Liberty St., New York. E. L. Giroux is Vice-Pres.

•ELY, NEV.—Bids are asked until 2 p. m., May 26, by the Giroux Consolidated Mines Co., for furnishing the following material and machinery to be delivered or erected near Ely: 2,500,000-gallon horizontal special heavy-duty pumping engines, operating against a total head of 1,200 ft.; 2,200 HP. boilers including boiler feed pumps; 40,000 ft. of 8-in. I. D. ⅜-in. wrought iron or steel pipe, plain ends; 20,000 ft. of 8-in. I. D. 5/16-in. wrought iron or steel pipe, plain ends; 10,000 ft. of 8-in. I. D. ¼-in. wrought iron or steel pipe, plain ends; 4,000 plain end couplers. Specifications can be secured at the office of Alexander Potter, Consulting Engr., 143 Liberty St., New York.

GLENNS FERRY, IDAHO.—SLICK BROS. have been awarded the contract by the King Hill Irrigation & Power Co. for the construction of ditches and laterals to furnish water for the company's lands on the Snake River, between Glenns Ferry and King Hill.

BOISE, IDAHO.—The time set for the completion of Hubbard & Carlson's contract to complete a certain portion of the Payette-Boise canal system, Idaho, has been set forward 59 days, making the date of completion Aug. 30. It is believed that causes entirely beyond the control of the contractors delayed their work for that time, and that they should not be forced to pay the penalty provided for in the contract in the event of failure to complete the work on time.

NIAGARA FALLS, ONT.—Bids are asked until May 18 by the city for furnishing and erecting one 3,000,000-gallon electrically-driven turbine pump. J. H. Jackson, A. M. C. S. C. E., is City Engr.

BRANTFORD, ONT.—The contract for constructing a storage reservoir here has been awarded by the city to H. F. MOOERS, of Kingston, Ont., at $15,000. T. Harry Jones is City Engr.

SEWERAGE.

FOXCROFT, ME.—Bids are asked until noon, May 15, by the Board of Selectmen, for excavating, laying and completing 3,000 ft. 12-in. and 15-in. pipe sewer, pipe to be furnished by the town. A. J. McNaughton is Chn. Bd.

LOWELL, MASS.—The Committee on Sewers voted on April 27 to recommend a loan of $75,000 for constructing sewers in Oaklands and Wigginville. Also for constructing smaller sewers.

HOLYOKE, MASS.—The following bids were received on April 24 by the Board of Public Works for constructing 2,400 ft. of pipe sewer: Bryne Construction Co., 53 State St., Boston, Mass., $2.40 per lin. ft.; Daniel O'Connell, $3.25; Rivers & Young, $5.20.

SHARON SPRINGS, N. Y.—Plans are being prepared by Morrell Vroomen, of Gloversville, N. Y., for a sewage purification plant for Sharon Springs.

NORTH TONAWANDA, N. Y.—A. P. Smith, City Engr., has completed plans and estimates for the construction of a sewer system in Rumboldt Ave. Estimated cost, $29,000.

NEW YORK, N. Y.—Bids are asked until 11 a. m., June 3, by Bird S. Coler, Pres. Boro. of Brooklyn, for constructing relief sewers and appurtenances in various streets and avenues.

Bids are asked until noon, May 26, by George Cromwell, Pres., Boro. of Richmond, St. George, New Brighton, New York, for furnishing all the labor and materials required for constructing a combined sewer in Brighton Ave., from York Ave. to Webster Ave.; Pine St., from Brighton Ave. to Brook St.; Hudson St., from Brighton Ave. to First Ave.; First Ave., from Pine St. to Jersey St., in the First Ward of the Borough of Richmond, together with all work incidental thereto.

•PEEKSKILL, N. Y.—Bids are asked until 8 p. m., May 26, by the Board of Trustees for the construction of a house sewer and underdrain in Washington St. Albert E. Cruger is Clk. Bd.

•LAKE PLACID, N. Y.—Bids are asked until 1 p. m., May 20, by the Ruisseaumont Sewerage Commission at the office of F. A. Isham, Lake Placid, for the construction of about 2½ miles of sewers from 6 to 12 ins. diameter, together with all manholes, lampholes, flush tanks, etc.

CAPE MAY, N. J.—See under Water Supply—Irrigation.

EAST RUTHERFORD, N. J.—Bids are asked until May 25 by the Borough Sewer Committee for the construction of a system of sewers, approximately 14½ miles of 8 to 24-in. sewers, exclusive of house connections of 6-in. pipe. Charles B. Johnson is Boro. Clk.

SEWICKLEY, PA.—Bids are asked until 5 p. m., May 19, by Frederick T. Martin, Boro. Engr., for the construction of a sewer in River Ave., from Chadwick St. 475 ft. northwardly.

BALTIMORE, MD.—Bids are asked until 11 a. m., May 27, by the Sewerage Commission for the construction of storm water drains. Harry W. Rogers is Secy., Comn.

The Sewerage Commission on May 5 decided to recommend to the Board of Awards that the contract for constructing the substructure and superstructure of the pumping station be awarded to the Noel Construction Co., German and Calvert Sts., Baltimore, at its bid for both of $298,955, and two sections of the east low level interceptor to Timothy J. O'Connell, of Dorchester, Mass., at $187,052 for both.

OAKLAND, MD.—The city has voted $60,000 of bonds for the construction of a sewer system and water-works. J. C. Dunham is City Clk.

WASHINGTON, D. C.—The Commissioners of the District of Columbia have awarded contracts as follows for the four sewers for which bids were recently opened: JAMES A. COYLE, Washington, D. C., Sewer "A," $1,824; "C," $1,423; "D," $5,657. WARREN J. BRENIZER CO., Second and O Sts., S. E., Washington, Sewer "A," $4,927.

•WASHINGTON, D. C.—Bids were received as follows on May 11 at the office of the District of Columbia Commissioners for the construction of sewers in the District: W. J. Brenizer, Washington, ordinary excavation, 95 cts.; sewer brick masonry, $15; 12-in. diameter sewer pipe, 80 cts.. E. G. Gummel, 300 Rhode Island Ave., Washington, excavation, 70 cts.; masonry, $14; sewer pipe, 70 cts.

ROANOKE, VA.—We are officially advised that the following bids were received on April 27 by the city for sewer extension west of Fourth St. south of Highland Ave.: Roanoke Concrete Co., $5,028; R. M. Bibb, $4,152; C. Markley, $3,443; B. R. McGhee & Co., $3,271. W. B. Bates is City Engr.

•GULFPORT, MISS.—Specifications are on file at the office of Engineering News, New York, for the construction of storm water sewers. Bids are asked until May 26.

•LOUISVILLE, KY.—We are officially advised that bids were received on April 29 by the Commissioners of Sewerage for the construction of Section "A" of the Southern Outfall sewer system as follows: FERRO CONCRETE CONSTRUCTION CO., Cincinnati, Ohio, $91,598 (awarded contract); Mason & Hauger, Richmond, Ky., $92,873; E. G. Nave Bro. Co., Portsmouth, Ohio, $102,481; H. Bickel Co., Louisville, $104,782; T. B. Jones Co., Louisville, $112,484; Blackstaff Engineering Co., Philadelphia, Pa., $129,024; Engineer's estimate, $134,783. J. B. F. Breed is Ch. Engr., Comrs.

•LOUISVILLE, KY.—Bids are asked until noon, May 27, by the Commissioners of Sewerage for the construction of a sewer known as the Cane Hill cemetery sewer and drain, Contract No. 7 of the Comprehensive System of Sewerage. J. B. F. Breed is Ch. Engr., Comrs.

WYOMING (Cincinnati post-office), OHIO.—The Village Council has voted to issue $48,000 of bonds for constructing a sewer system.

STEUBENVILLE, OHIO.—Bids are asked until May 18 by the Board of Public Service for constructing a pipe sewer in a part of Ross St. H. G. Simpson is Clk. Bd.

DAYTON, OHIO.—The City Council has passed an ordinance appropriating $89,500 for the construction of additions to the storm water sewer system. F. J. Cellarius is City Engr.

YOUNGSTOWN, OHIO.—Bids are asked until noon, May 18, by the Board of Public Service for the construction of a sewer in Grace Ave. W. H. McMillin is Clk. Bd.

EVANSVILLE, IND.—The following bids were received on April 25 by the Board of Public Works for constructing main sewer in Lafayette St.: Newman Sewer Construction Co., Evansville, $19,684; Scarborough-Davis Co., $24,213.

AURORA, IND.—The contract for constructing a sewer in District No. 1 has been awarded by the City to SCOTT & WALKER, of Aurora, at $12,843. Bids for this work were opened on April 27. Frank D. Johnston is City Clk.

MUNCIE, IND.—The following bids were received on May 4 by the Board of Public Works for the construction of the Kilgore Ave. sewer: GOUGH BROS., $4,124 (awarded contract); W. M. Birch, $4,150; John Gubbins, $4,299; Cornelius Delaney, $4,380; Lyons & Russey, $4,417. John O. Potter is City Engr.

INDIANAPOLIS, IND.—Bids are asked until May 20 by the City for the Construction of the Morris St. and River Ave. sewer, length five miles. Estimated cost, $120,000. B. H. Miller is City Engr.

ANN ARBOR, MICH.—The contract for constructing three miles of sewers has been awarded by the City to E. L. SCHNEIDER, of Ann Arbor, at $9,466. E. W. Groves is City Engr.

MILWAUKEE, WIS.—The Board of Public Works on May 5 awarded the contract to R. J. HICKEY for the construction of a sewer in Townsend St., from 27th to 30th Sts., and in 27th St., from Townsend to Keefe Aves., 1,730 ft. in length and from 15-ins. to 84-ins. in diameter, at $9.69 per lin. ft. Charles G. Poetsch is City Engr.

CLINTON, IOWA.—The DAVENPORT CONSTRUCTION CO., of Davenport, Iowa, was awarded the contract on April 28 by the City for the construction of two miles of 9 to 24-in. pipe sewer in the Fourth district, at about $15,000.

MUSCATINE, IOWA.—A. KORNEMAN was awarded the contract on April 30 by the City Council for the construction of the Orange St. sewer at $7,597.

JOPLIN, MO.—C. F. SCHILLING, of St. Louis, Mo., was awarded the contract on May 5 by the city for constructing three main outlet sewers at $9,016.

SELMA, CAL.—A sewer system will be constructed here at an estimated cost of $45,000. W. H. Shafer is Engr.

SEATTLE, WASH.—An ordinance has been passed ordering the construction of sewers in Fourth Ave. and other streets. Estimated cost, $47,000. R. H. Thomson is City Engr.

SALT LAKE CITY, UTAH.—The following bids were received on May 1 by the Board of Public Works for (a) sewer extension No. 185; (b) sewer extension No. 186: (a) Davis & Heuser, $1.82 per ft.; (b) $1.65; J. D. Hanley, (a) $1.54; (b) $1.76; James Kennedy, (a) $1.33; (b) $1.72; Strange & McGuire, (a) $2.05. Louis C. Kelsey is City Engr.

PRESTON, ONT.—Bids are asked until noon May 16, by H. C. Edgar, Town Clk., for the construction of trunk sewers and sewage disposal works here.

GARBAGE DISPOSAL.

NEW YORK, N. Y.—Bids are asked until noon, May 26, by Foster Crowell, Comr. of Street Cleaning, for completing an abandoned contract for loading and trimming deck scows and other vessels of the Department of Street Cleaning and for the privilege of sorting and picking over and appropriating certain of the refuse at the dumps of the said department in the Borough of Manhattan.

PHILADELPHIA, PA.—The following bids for sprinkling macadamized roads for the year 1908 have been opened by the Acting Director of Public Works. The bidders were: David Peoples, $6.40 a day for each team; David McMahon, Third District, $5.24, entire city, $5.75; James Irwin, First District, $5.45, entire city, $7; M. J. McGunn, Second District, $6; Michael McNulty, Second District, $5.75; John R. Leewright, Second District, $6, entire city, $7; Daniel S. Bader, Second District $4.75; Richard P. Bennis, Fourth District, $6.80.

SIOUX CITY, IA.—J. D. PATTON, of Sioux City, has been awarded the contract for collecting and disposing of garbage for a period of two years. Bids were opened on April 21. A. A. Smith is City Clk.

OTTAWA, ONT.—A specially appointed committee have recommended the establishment of an incinerator. The estimated cost of the plant is $25,000. N. J. Ker is City Engr.

STREETS AND ROADS.

(* *denotes that this work is advertised in Engineering News.*)

FORT LYON (Portland post-office), ME.—Bids are asked until 3 p. m., June 1, by Capt. F. J. Morrow, Constructing Q. M., U. S. A., for constructing a road here.

LYNN, MASS.—WARREN BROS. have been awarded the contract by the Board of Public Works for laying 10,000 sq. yds. of bitulithic pavement in Western Ave., at $2.25 per sq. yd.

THE HASSAM PAVING CO. has secured the contract for 10,000 sq. yds. of paving at $1.75 per sq. yd.

LAWRENCE, MASS.—Wagenback & Son submitted the lowest bid to the City Council on May 2 for paving Common St. with granite blocks on a sand base, Portland cement grout, at $2.15 per sq. yd. A. Marble is City Engr.

WORCESTER, MASS.—The contract for 8,000 yds. of granite block paving was awarded on May 1 by the City to the WEBB GRANITE & CONSTRUCTION CO.

•FORT ANDREWS (Boston post-office), MASS.—Plans and specifications are on file at the office of Engineering News, New York, for grading, constructing macadam roads, concrete walks, etc., here. Bids are asked until June 1. Capt Ira L. Fredendall is Constructing Q. M., U. S. A.

NEWPORT, R. I.—BOOTH BROS. were awarded the contract on April 30 by the Board of Aldermen for furnishing 200,000 paving blocks.

WATERBURY, CONN.—The WARREN BROS. CO., 93 Federal St., Boston, Mass., have been awarded the contract for paving with bitulithic, Bishop, Elizabeth, West Main and Willow Sts. at about $40,000. R. A. Cairns is City Engr.

FORT H. G. WRIGHT (New London, Conn., post-office), N. Y.—Bids are asked until 11.45 a. m., June 1, by Maj. William E. Horton, Q. M., U. S. A., for removing parades back of, and turfing all slopes on the road to Battery Hoppock.

SOUTHINGTON, CONN.—The contract for 2,217 ft. of macadam and 550 ft. of telford on the Waterbury road in Southington has been awarded to CHARLES W. LYON, of Meriden, Conn., at $3,934.16. Other bidders were: Thomas Kearney, Meriden, $5,394; F. T. Ley Co., Springfield, Mass., $5,340; Arrigoni & Bro., Durham, $5,621; Pierson Engineering & Construction Co., Bristol, Conn., $4,304; B. D. Pierce, Jr., Co., Bridgeport, Conn., $5,200; L. Suzio, Meriden, $4,950.

MERIDEN, CONN.—THE PIERSON ENGINEERING & CONSTRUCTION CO., Bristol, Conn., has been awarded the contract for 2,765 ft. of macadam and 700 ft. of telford road on the Meriden-Waterbury turnpike in Meriden, at $4,487. Other bidders were: L. Suzio, Meriden, $5,895; B. D. Pierce, Jr., Co., Bridgeport, Conn., $5,376; C. W. Tryon, Meriden, $4,666; Arrigoni & Bro., Durham, Conn., $5,659; MacDonald & Hennessey, Middletown, Conn., $5,989; F. T. Ley Co., Springfield, Mass., $6,237; Thomas Kearney, Meriden, $5,028.

HARTFORD, CONN.—Bids are asked until noon, May 19, by the State Highway Commissioner for the construction of 395 lin. ft. of macadam-telford road on the New Haven turnpike in North Branford; 8,700 ft. of same on the Guilford road, in the town of Branford (four 20-in. tile culverts being required on this section); and 2,900 ft. of same on the New Haven turnpike, in the town of Guilford.

NEW YORK, N. Y.—Bids are asked until noon, May 26, by George Cromwell, Pres. Boro. of Richmond, St. George, New Brighton, New York, for furnishing and delivering 2,500 tons of 1½ and ¾-in. broken stone and screenings of trap rock or Staten Island syenite, at such points and in such quantities from time to time, as the Superintendent of the Bureau of Highways may direct, upon the roads within that portion of the Borough of Richmond known as Stone District No. 3, and bounded as follows: On the north from westerly end of Richmond Turnpike along southerly side of Richmond Turnpike to Union Ave., westerly side of Union Ave. to Old Stone Road; easterly side of Old Stone Road to Rockland Ave.; southerly side of Rockland Ave., Egbert Ave., Richmond Road and Rose Ave. to Tenth St. (New Dorp); easterly side of Tenth St. to New Dorp Lane, thence along southerly side of New Dorp Lane to New York Lower Bay; on the east, south and west by New York Lower Bay, Raritan Bay, Arthur Kill or Staten Island Sound to Linoleum Works and place of beginning.

AMSTERDAM, N. Y.—THOMAS LEONARD was awarded the contract on May 5 by the city for paving portions of Market, Livingston, Church, Walnut and West Main Sts. with Mack block on a 6-in. concrete foundation at from $2.56 to $2.67 per sq. yd. F. E. Crane is Ciy Engr.

FORT PLAIN, N. Y.—The Village Trustees have directed that estimates be prepared for paving various streets.

POUGHKEEPSIE, N. Y.—The Board of Public Works has decided to have Main St. paved with brick from Cherry St. east to the city line.

HILTON, N. Y.—Bids are asked until May 16 by Morton L. Nellis, Town Clk., for furnishing, crushing and placing about 1,400 yds. crushed stone and about 470 yds. stone screenings on the Clapper Road.

HORNELL, N. Y.—Bids are asked until 3 p. m., May 19, by Frederic Leach, Supt. Pub. Wks., for constructing 13,160 sq. yds. of vitrified brick or block pavement, and 7,660 lin. ft. of curbing.

MONTCLAIR, N. J.—Plans have been prepared for the construction of hard roads, estimated to cost $10,000. Bids will soon be asked. Kenneth D. Owen is Town Surv.

•SALEM, N. J.—The following bids for the Penn's Grove and Dancer's Mill Road were received on May 9 by the Board of Chosen Freeholders: E. C. Humphrey & Co., Hackensack, N. J., $27,333; B. F. Sweeten & Co., Camden, N. J., $27,949; J. F. Shanley Co., Philadelphia, Pa., $29,600; George F. Snyder & Co., Philadelphia, Pa., $25,271. J. F. Ayres is Dir Bd.

•NEW BRUNSWICK, N. J.—Bids are asked until 8 p. m., June 15, by the city for the improvement of about 20,000 sq. yds. of street paving, 2,800 lin. ft. of curb, etc. John T. Kemp is Street Comr.

GLEN ROCK (Ridgewood post-office), N. J.—The contract for eight miles of macadamizing and grading here was awarded on April 28 by the Borough to J. S. SOWERBUTT, of Paterson, N. J., at $31,778. W. L. Thompson is Boro. Engr.

BAYONNE, N. J.—Bids are asked until 8 p. m., May 19, by the City Council for the improvement of 50th St., from Ave. C to Broadway; 28th St., from Ave. C to Ave. E; Tenth and Eleventh Sts., from Ave. A to the Boulevard; Ave. A, from 24th to 25th Sts. Bids will be received for each improvement separately. W. C. Hamilton is City Clk.

TRENTON, N. J.—Bids are asked until 8 p. m., May 19, by the Common Council for paving various streets. H. B. Salter is City Clk.

•CAPE MAY, N. J.—Bids are asked until noon, June 8, by the Board of Chosen Freeholders of Cape May County, for the construction of a gravel road, 4.264 miles in length. R. Fendall Smith is County Engr.

CONNELLSVILLE, PA.—P. J. FLYNN was awarded the contract on May 5 by the Borough Council for paving North Alley and Race St. at $3,638 and $3,495 respectively.

AVALON (Pittsburg post-office), PA.—Bids are asked until 5 p. m., May 21, by McBride Surveying & Engineering Co., Borough Engrs., 331 Fourth Ave., Pittsburg, Pa., for grading, paving and curbing Bauer Ave., from Ohio St. to Birmingham Ave.

CHESTER, PA.—The following bids were opened on May 4 by the Select and Common Councils for paving Parker St. from Fifth to Sixth Sts., and Concord Ave.: For paving Parker St.: Martin B. Bunyea, vitrified shale beveled edge Grafton block, $2.23 per sq. yd.; Auburn block, $2.28; Eagle, $2.35; Saxton, $2.35; Barber Asphalt Paving Co., 114 Liberty St., New York, sheet asphaltum, no guarantee, $2.16 per sq. yd.; 5-year guarantee, $2.16; 10-year guarantee, $2.24; John Hanna & Sons, Auburn block, $2.29 per sq. yd.; Eagle, $2.33; Saxton, $2.27; standard Clearfield, $2.31; Pennsylvania clay, $2.36; Patton, $2.31; Metropolitan, $2.47; Grafton, $2.26; Mack, $2.33; Pittsburg, $2.35. For paving Concord Ave.: John Hanna & Sons, Auburn block, 2.29 per sq. yd.; Eagle, $2.33; Saxton, $2.27; standard Clearfield, $2.31; Pennsylvania clay, $2.36; Patton, $2.31; Metropolitan, $2.47; Grafton, $2.26; Mack fire clay block, $2.33; Pittsburg fire clay block, $2.25; Barber Asphalt Paving Co., no guarantee, $2.16 per sq. yd.; 5-year guarantee, $2.16; 10-year guarantee, $2.24. MARTIN B. BUNYEA, Grafton block, $2.23 per sq. yd.; Auburn, $2.28; Eagle, $2.35; Saxton, $2.35 (awarded contract).

The BARBER ASPHALT PAVING CO. was the only bidder and was awarded the contract for the paving of Market St. from Seventh to Ninth Sts., and Eighth St., westwardly from Edgmont Ave., at $2.16 per sq. yd., no guarantee; 5-year guarantee, $2.16; 10-year guarantee, $2.24.

•KINGSTON, PA.—Bids are asked until 7 p. m., May 19, by W. J. Williams, Borough Secy., for paving, grading and curbing Chestnut Ave., from Market St. to Pringle St., College Ave. from Market St. to Hoyt St., and Rutter Ave. from Market St. to Butler St., in the Borough of Kingston, the paving to be with repressed vitrified fire clay paving block, laid upon a concrete foundation and the curbing to be a concrete curbing. Estimated amount of pavement to be laid, 16,207 sq. yds.; and curbing to be set, 10,417 lin. ft. Young & Wintermute, Second National Bank Bldg., Wilkes-Barre, Pa., are Borough Engrs.

HARRISBURG, PA.—Bids are asked until May 28, by the State Highway Department, Harrisburg, for constructing 18,000 ft. of State road in Diehl Township, Wayne County.

Bids are asked until May 20, by the State Highway Department, Harrisburg, for constructing 11,675 ft. of state road in Oneida Township.

Bids are asked until May 27, by the State Highway Department, Harrisburg, for constructing two roads, 8,400 and 7,700 ft. long, in Upper Hanover Township, Montgomery County.

Bids are asked until May 26, by the State Highway Department, Harrisburg, for constructing the following state roads in Lycoming County: Mifflin, 10,890 ft.: Nippenose Township, 20,200 ft.; Salladsburg Borough, 5,000 ft.; Piatt Township, 12,600 ft.

Bids are asked until May 21, by the State Highway Department, for constructing the following state roads: Weissport Borough, Carbon County, 1,500 ft.; Franklin Township, Carbon County, 11,320 ft.; North Cadorus Township, York County, 12,640 ft.

Bids are asked until May 28, by the State Highway Department, Harrisburg, for constructing 7,112 ft. of state road in Washington Township, Clarion County.

Bids are asked until June 1, by the State Highway Department, Harrisburg, for constructing the following state roads in Bucks County: Hilltown Township, two roads, 4,200 ft. and 10,335 ft.; Bristol, 14,680 ft.; Silverdale Borough, 1,660 ft. Joseph W. Hunter is State Highway Comr.

*SMETHPORT, PA.—Bids are asked by B. G. Holder, Borough Secy., until 8 p. m., May 25, for paving between 13,000 and 18,000 sq. yds. in the borough.

BALTIMORE, MD.—The State Geological Survey opened bids on May 1 for work on three sections of the Baltimore-Washington boulevard. The lowest bidders were as follows: For section between Beltsville and College Park: Fisher, Riley & Corozzo, $18,339; for section between College Park and Hyattsville, same firm, $16,592; for the section between Elkridge and Wesley Grove, Thomas Strouse, $41,322. W. W. Crosby is Ch. Engr.

*SALISBURY, MD.—Specifications are on file at the office of Engineering News, New York, for grading, paving, curbing and draining various streets. Bids are asked until May 19. T. Chalkley Hatton, Wilmington, Del., is Engr.

WASHINGTON, D. C.—The Commissioners of the District of Columbia have awarded to the BRENNAN CONSTRUCTION CO., Washington, D. C., the contract for laying the pavement between H St. and New York Ave., on First St., at the following unit prices: Laying 9,000 sq. yds. of 6-in. concrete base, 59 cts.; laying 500 sq. yds. of 6-in. gravel base, 20 cts.; cleaning and laying 10,000 sq. yds. of granite block paving, 60 cts.; relaying 500 sq. yds. of granite block paving, 50 cts.; trim grading and rolling, 10,000 sq. yds., 9 cts.; total, $12,560.

NORFOLK, VA.—AUGUST COSTER of Norfolk has been awarded the contract by the city for laying granolithic sidewalks on Monticello and Princess Anne Aves., at 97 cts. per sq. yd.

*FORT BARRANCAS, FLA.—Bids are asked until 11 a. m., June 15, by Capt. D. W. Hand, Q. M., U. S. A., for the construction of concrete walks here.

FORT DADE, FLA.—The lowest bid opened by the Constructing Quartermaster on April 25 for constructing brick roads here was that of A. B. Cassady of Egmont, Fla.

FORT PICKENS (Fort Barrancas post-office), FLA.—Bids are asked until 11 a. m., June 1, by Capt. D. W. Hand, Constructing Q. M., U. S. A., for the construction of plank roads at Fort Pickens.

*GULFPORT, MISS.—Specifications are on file at the office of Engineering News, New York, for street paving and curbing here. Bids are asked until May 26. N. D. Goodwin is City Clk.

*KNOXVILLE, TENN.—Bids are asked by the City Recorder until noon, May 22, for paving with brick, asphalt, bitulithic or asphaltic concrete pavements about 10,000 sq. yds. of streets, embraced in Improvement Districts Nos. 19 to 39 inclusive. S. D. Newton is City Engr.

WESTERVILLE, OHIO.—Bids are asked until noon, May 29, by Elsworth Horlocker, Village Clk., for grading and paving portions of Vine St., Lincoln St. and Home St., with hard burned brick, block or other durable material.

COLUMBUS BARRACKS, OHIO.—Bids are asked until 10 a. m., June 1, by Capt. H. J. Hirsch, Constructing Q. M., U. S. A., for the construction of brick road crossings, artificial stone pavements, etc, here.

YOUNGSTOWN, OHIO.—Bids are asked until noon, May 18, by the Board of Public Service for paving Wich Ave. W. H. McMillin is Clk. Bd.

CINCINNATI, OHIO.—Bids are asked until noon, May 18, by the Board of Public Service for the improvement of several streets; also until same time, May 19 and 20, for the improvement of various streets and alleys. John J. Wenner is Clk. Bd.

TERRE HAUTE, IND.—Bids were opened by the Board of Public Works on May 6 for the paving of (a) Poplar St., from Third to 13th Sts., (b) Walnut St. from Third to Ninth Sts.: (a) Meredith Construction Co., Section A, $30,900; B, $130; laterals, $10. Roberts & Co., Section A, $31,890; laterals, $7. Switzer & Snider, Section A, $32,628; B, 130; laterals, $12.50. Kirkpatrick Bros., Section A, $36,160; B, $165. Foulkes-Forbes Co., Section A, $33,130; B, $140; Laterals, $8. H. J. Parrish & Bros., Section A, $31,696; B, $135; laterals, $15. Keegan Bros., Section A, $32,400; B, $135; laterals, $12. W. H. Harris, Section A, $31,000; B, $140; laterals, $15. (b) Switzer & Snider, Section A, $19,023; B, $132; laterals, $12.50. Roberts & Co., Section A, $17,890; laterals, $7. J. W. Erler, Section A, $18,487; B, $106; laterals, $12; Gottschalk & Bros., Section A, $18,600; B, $150.

TERRE HAUTE, IND.—Bids are asked by the Commissioners of Vigo County until 11 a. m., May 23, for the construction of gravel roads as follows: Road No. 4 in Honey Creek Township, 2 miles in length; road No. 5, Honey Creek Township, 2¾ miles in length; road No. 6, in Honey Creek township, 1¾ miles in length: road No. 7 in Honey Creek Township, 2¾ miles in length. N. G. Wallace, County Audr.

*MUNCIE, IND.—Specifications are on file at the office of Engineering News, New York, for grading and paving several streets with brick. Bids are asked until May 19.

MUNCIE, IND.—The Commissioners of Delaware County have awarded a contract for the construction of 21 miles of gravel roads in Harrison Township to CHARLES H. RUSSIE at $48,883.

BRAZIL, IND.—The Commissioners of Clay County have awarded contracts for the construction of gravel roads as follows: The Knox and Daugherty roads to KEEGAN BROS., at $8,196 and $4,833; the Walker road, to FITZPATRICK BROS., at $6,777; the Kitchel road to G. L. GIBBONS, at $5,300. James L. Burnes is County Audr.

GREENCASTLE, IND.—Bids are asked until 11 a. m., May 30, by the Comrs. of Putnam County for macadam and gravel roads. D. V. Moffitt is County Audr.

JASPER, IND.—Bids are asked by the Commissioners of Dubois County until 1 p. m., June 1, for the construction of four miles and 80 ft. of gravel road in Bainbridge Township. M. A. Sweeney is County Audr.

DECATUR, IND.—Bids are asked by the Commissioners of Adams County until 10 a. m., June 1, for the construction of a macadamized road on the line between Washington and St. Mary's Townships, and until 2 p. m., same date, for the construction of a macadamized road in Washington and Root Townships. C. D. Lewton is County Audr.

FRANKLIN, IND.—Bids are asked by the Commissioners of Johnson County until 1.30 p. m., June 1, for the construction of 6,155 ft. of gravel road in Union and White River Townships. W. B. Jennings is County Audr.

TIPTON, IND.—Bids are asked by the Commissioners of Tipton County until 10 a. m., June 1, for the construction of 15,775 ft. of gravel road in Prairie Township. J. F. Barlow is County Audr.

MUSKEGON, MICH.—Bids are asked until noon, May 18, by P. P. Misner, City Recdr., for grading and paving with vitrified brick, the alley between Western Ave. and Clay ave., from Terrace St. to Fourth St.

PLYMOUTH, MICH.—The following bids were received on April 23 by the city for 10,277 sq. yds. of pavement, including 10,152 cu. yds. excavation, etc. (a) brick, (b) 8-in. macadam, (c) concrete macadam: Heffner & Son, Celina, Ohio, (a) $22,062, (c) $18,260; Neal & Ryan, Lansing, Mich., (a) $25,326; Charles Killen, Bluffton, Ohio, (a) $27,144; Kaumeier Bros., Port Huron, Mich., (a) $25,643, (b) $20,813, (c) $23,893; Johnson & Lynn, Paulding, Ohio, (a) $23,811, (c) $18,173; H. E. Terry, Saginaw, Mich., (a) $25,626, (b) $18,227, (c) $18,021; Hatch & Sons Co., Detroit, Mich., (a) $26,227, (b) $17,080; Lennane Bros., Detroit, (a) $23,795, (c) $20,507; Baker & Chancy, Detroit, (a) $23,290, (b) $14,760, (c) $16,291. Riggs & Sherman Co., of Toledo, Ohio, are Engrs.

MARION, ILL.—On April 27 the Board of Local Improvement, F. G. Hoffman, Secy., awarded the contract for paving with brick the Central Paving District to R. E. TOWNSEND, of Marion, at $34,190; other bidders were: Collins & Mannen, Mt. Vernon, Ill., $35,981; Interurban Construction Co., Danville, Ill., $35,122; A. F. Franks, Jacksonville, Ill., $37,606; R. E. McCann, Herrin, Ill., $37,123; H. C. Gass, Belleville, Ill., $39,925.

WAUKESHA, WIS.—Bids are asked until 2 p. m., May 22, by the Board of Public Works for macadamizing Hartwell Ave., from Broadway to College Ave.

GREEN BAY, WIS.—The following have been received by the city for the construction of asphalt pavements, with concrete combined curb and gutter: Main St. from the east end of the bridge over East River to the east line of Pleasant St., and Pleasant St., from the north line of Main St. to the north line of Cedar St.; P. McDonnell, $18,010; R. F. Conway Co., $19,600; Barber Asphalt Paving Co., 114 Liberty St., New York, $21,990; Andrews Asphalt Paving Co., using Land asphalt, $16,814; using Bermudez Lake asphalt, $19,226; Broadway, from the north line of James St. south to the tracks of the Chicago & Northwestern Railway Co., P. McDonnell, $57,124; R. F. Conway Co., $61,800; Barber Asphalt Paving Co., $62,265; Andrews Asphalt Paving Co., using Land asphalt, $53,152; using Bermudez Lake asphalt, $59,978; south line of Main St. to the north line of Porlier St.: P. McDonnell, $41,900; R. F. Conway Co., $42,000; Barber Asphalt Paving Co., $43,190; Andrews Asphalt Paving Co., using Land asphalt, $35,738; using Bermudez Lake asphalt, $40,168; Monroe Ave., from the south line of Porlier St., south to the city limits: P. McDonnell, $14,856; R. F. Conway Co., $15,000; Barber Asphalt Paving Co., $15,100; Andrews Asphalt Paving Co., using Land asphalt, $12,520; using Bermudez Lake asphalt, $14,034.

WATERLOO, IOWA.—The Bryant-Ford-McLoughlin Asphalt Co. was organized in Waterloo on April 29 with a capital stock of $100,000. The incorporators are W. A. Bryant, Sr., W. A. Bryant, Jr., and W. R. McLaughlin, of Waterloo, and M. Ford, of Cedar Rapids, Iowa.

SIGOURNEY, IOWA.—The following bids were received on May 6 by the City Clerk for paving Jefferson and Main Sts. with brick: (a) 1,200 cu. yds. excavation, (b) 10,469 sq. yds. of paving, (c) 6,235 lin. ft. of curb and gutter: Burlington Construction Co., Burlington, Iowa, (a) 30 cts., (b) $1.92, (c) 47 cts.; Magden & Sheeley, Des Moines, Iowa, (a) 30 cts., (b) $1.88, (c) 57 cts.; J. W. Turner Imp. Co., Des Moines, Iowa, (a) 35 cts., (b) $1.93, (c) 62 cts.; Independent Construction Co., Davenport, Iowa, (a) 33 cts., (b) $2.07, (c) 62 cts.; Cedar Rapids Construction Co., Cedar Rapids, Iowa, (a) 37 cts., (b) $2.50, (c) 65 cts. C. R. Allen & Son, Ottumwa, Iowa, are Consulting Engrs.

LAWRENCE, KAN.—We are officially advised that O. C. CHAPIN, Leavenworth, Kan., has been awarded the contract by the city for 4,000 sq. yds. of brick paving on 4-in. concrete foundation, sand filler, at $1.31 per yd.; 2,000 sq. yds., 2-course brick paving, sand filler, at $1.30 per yd. and 35 cts. for earth excavation.

I. NICHOLSON has secured the contract for 2,000 ft. of limestone curb, 5x20 in., at 46½ cts. per ft. Holland & Wheeler, Lawrence, Kan., are Engrs.

PLATTSMOUTH, NEB.—The City Council on May 4 awarded the contract for lowering the pavement of Main and 16th Sts. to G. C. WOODWARD of Omaha, Neb., at $6,587. The other bidders were: Mapes & Osborne of Plattsmouth, $8,251; William Gray, Omaha, $8,331; M Ford & Co. of Lincoln, Neb., $10,900; H. C. Makin & Son of Plattsmouth, $11,035.

HELENA, MONT.—LOUIS JOHNSON has been awarded the contract by the city for grading, curbing and parking Eighth Ave., at $10,506.

OKLAHOMA CITY, OKLA.—The paving of 5½ miles of streets is contemplated by the city. Estimated cost, $250,000.

SEATTLE, WASH.—Ordinances have been passed ordering the following street improvements: Bay View St., and other streets, grading, etc., $36,000; East 65th St. and other streets, concrete walks, $6,800; alley in Block 135, A. A. Denny's Broadway addition, asphalt paving, $2,700; West Stacy St., planking, $3,000; Fifth Ave., N. E., and other street, concrete sidewalks, $19,000. R. H. Thomson is City Engr.

SAN FRANCISCO, CAL.—Bids are asked until 2 p. m., May 27, by the Board of Public Works for a municipal asphalt plant. Robert J. Loughery is Secy. Bd.

MANUFACTURING PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

PEABODY, MASS.—The Hunt & Rankin Leather Co. is having plans prepared for a 4-story frame addition to its tanneries. H. V. Hunt is Mgr., Summitt Ave.

SOUTH WINDHAM, CONN.—The Smith & Winchester Mfg. Co. will erect a brick or cement addition to its plant to accommodate the business of the Elkhart Paper Bag Machine Co., which it has absorbed.

ROCHESTER, N. Y.—Plans have been prepared by C. F. Herschfelder for a 2-story furniture factory building for F. M. Garvey.

FORT TERRY, N. Y.—Bids are asked until 10.30 a. m., June 1, by Maj. William E. Horton, Q. M., for the construction of a brick or stone bakery building at Fort Terry, and installing plumbing, electric wiring and lighting fixtures, and heating plant.

CAMDEN, N. J.—Permits have been granted for the erection of three structures to replace the ones destroyed by fire at the varnish plant of the N. Z. Graves Co., Twelfth and Penn Sts. One building will be 56 × 112 ft., two stories high; another 35 × 135 ft., two stories high; while the third will be a 1-story office building, 13 × 19 ft.

GARLAND, PA.—An addition will be built to the plant of the Garland Nut & Rivet Co. The improvements will consist of a structure 25 × 66 ft., located at the north end of the main building, which will be used as a continuous galvanizing plant. The structure will be constructed by the West Pittsburg Realty Co. for the Garland Corporation.

PHILADELPHIA, PA.—The general contract for constructing a building for Joseph Maurer & Sons has been let to ROBERT BEATTY & BRO.

PITTSBURG, PA.—Plans have been prepared for a coke plant of 500 or more beehive ovens to be erected by the Bessemer Coke Co., Lewis Block, Pittsburg, on a tract of over 1,000 acres of coking coal land in Washington County.

MANCHESTER, VA.—We are officially advised that the Glacier Metal Co., Richmond, Va., will erect in Manchester a plant for the manufacture of Glacier anti-friction metal, copper-tin bearing metal and other babbitt metals. The works will be about 100 ft. long by nearly 40 ft. wide, two stories high, with a capacity of 25,000 lbs. babbitt metal a day. A. J. Battle is Mgr.

LYNCHBURG, VA.—The Norfolk & Western Mfg. Co., Watkins L. Moorman, owner, will erect a 5½-story building, 100 × 40 ft., to cost $10,000; cost of machinery, $6,000. Daily capacity, 75 dozen pairs of overalls.

MOUNDSVILLE, W. VA.—The U. S. Stamping Co., of Moundsville, will erect a 3-story factory on Fostoria Ave. at a cost of $30,000.

CLARKSBURG, W. VA.—The Travis Glass Co. will establish a plant to manufacture glass milk jars, with a daily product of 20 tons of finished goods. The company will erect furnaces, etc., 90 × 300 ft., with corrugated iron roof and sides, wood frame; cost of building, $20,000; cost of machinery, including molds, $15,000. No architect or engineer has been engaged. H. E. Travis is Mgr.

GREENSBORO, N. C.—J. W., Bernard M. and C. Cone, of Greensboro, are planning to erect a mill as an addition to their present plant.

NEW ORLEANS, LA.—The Consumers' Bread and Baking Co., Mecheca Bldg., will erect a bakery to cost about $125,000. Morris Krohn is Pres.

MEMPHIS, TENN.—Harvie Jordan, Pres. of the Southern Cotton Association, is interested in the Farmers' Gin Compress Co., which will be capitalized a[illegible] 1,000,000 and will operate in the cotton be[illegible] the South, a new compress, as well as [illegible]e the cotton from grower to spinner. Th[illegible]dquarters of the company will be in M[illegible]is and subsidiary companies will be or[illegible]ed wherever one of the compresses is to b[illegible]tablished.

BOSTON, KY.—The Bosto[illegible]ills Co., incorporated with $15,000 ca[illegible] stock, will erect an elevator with a c[illegible]y of about 20,000 bushels; daily capaci[illegible]ls, 50 bbls. of flour. Wood Crady is Pres[illegible] L. Harned, Vice-Pres.; E. E. Perry, Sup[illegible]

NORWOOD (Marietta post-[illegible]), OHIO.—The Marietta Paint & Color [illegible]f Marietta, Ohio, will erect a plant o[illegible]e St., in Norwood. The factory will c[illegible] of a building 50 × 120 ft. to be used a[illegible]tore room, one of the same size to be u[illegible] for general manufacturing purposes, a b[illegible] house, a barrel house and an office b[illegible]g. W. A. Decker, 43 St. Clair St., Mari[illegible] Arch.

CLEVELAND, OHIO.—Geor[illegible] Rider & Co., Century Bldg., Engrs., h[illegible] the general contract to JOHN GILL [illegible]NS, Citizens' Bldg., for a 5-story facto[illegible]ilding for the Cleveland Worsted Mills C[illegible]

CINCINNATI, OHIO.—The W[illegible]rn Paper Goods Co. will erect a plant i[illegible] Millcreek Valley. About $150,000 will b[illegible]nded for buildings. Elzner & Anderson, [illegible]lls Bldg., are Archs.

FORT WAYNE, IND.—The [illegible] Wayne Corrugated Paper Co., will ask [illegible] bids soon for construction of a paper mill [illegible] this city. Estimated cost, $75,000. A. B. T[illegible]man and N. P. McMullan are Dirs.

SOUTH BEND, IND.—The School Board will receive bids for the construction and equipment of a foundry and forge building at the Training School grounds.

TECUMSEH, MICH.—H. Brewer & Co. are taking estimates for the erection of a plant. The main building will be 90 × [illegible] ft., one story brick; foundry building, 60 × 100 ft., with independent cupola, and blower house, 30 × 30 ft., also a room, 25 × 25 ft., for making foundry cores. The foundry is to have truss roof. The pattern storage house, 50 × 60 ft., two stories, will be built of brick; also the power-house.

DETROIT, MICH.—Van Leyen & Schilling, Archs., Peninsular Bank Bldg., have let general contract to A. A. ALBRECHT & CO., Penobscot Bldg., for remodeling the 3-story factory building for the Michigan Optical Co., 83 Beacon St.

OAK PARK, ILL.—Henry G. Fiddelke, 201 Lake St., Oak Park, has prepared plans for a 1 and 2-story bakery, 78 × 96 ft., and stable, 45 × 78 ft., for Oak Park Baking Co., 106 Lake St. Cost, $30,000.

BEAVER DAM, WIS.—We are officially advised that the ALLING CONSTRUCTION CO., 72 Madison St., Chicago, Ill., has been awarded a contract for constructing a plant for the Beaver Dam Malleable Iron Works in Beaver Dam, and is in the market for 500 bbls. of sand, gravel, mill work, steam heating, electrical wiring, plumbing and drainage, and sheet metal work.

WAUPUN, WIS.—M. J. Tappins, Secy. State Bd. of Control, Madison, Wis., advises us that the contract for constructing the binder twine factory at the Wisconsin State Prison, Waupun, has been awarded to CHARLES W. NOBLE, of La Crosse, Wis., for $40,300. The contract does not include plumbing, heating or lighting.

MILWAUKEE, WIS.—O. C. Uehling, Arch., 831 Wells Bldg., is taking estimates on a $100,000 brick factory building, 7-story, 100 × 140 ft., to be erected on Hanover and Lake Sts., by M. Molitor and Peter Hummell, box manufacturers.

RED WING, MINN.—The S. B. Foot & Co. has let general contract to CAMPBELL & SON for a 3-story tannery to cost $60,000. S. B. Foot is Pres.

HOPKINS, MINN.—The Red Wing Sewer Pipe Co., J. H. Rich, Pres., Red Wing, contemplates erecting a 4-story factory building at Hopkins to cost $300,000.

WICHITA, KAN.—The contract has been let by August Rosenberger, Pres. of the Southwestern Broom Mfg. Co., for the erection of a broom factory and warehouse, which will be located at the corner of 15th and Santa Fe Sts. JULIUS WOLTER, of this city, is the contractor. The factory and equipment will cost about $10,000. The contract calls for a 4-story factory building 65 × 117 ft.; one 1-story boiler room 18 × 32 ft. and ten complete warehouses under one roof, but separated by fireproof division walls. Each one of these warerooms will be 20 × 80 ft.

KANSAS CITY, MO.—New estimates will be taken by Sheppard & Farrar, Archs., Minor Bldg., for a 6-story factory building for the Loose Wiles Cracker & Candy Co., Eighth and Santa Fe Sts. Estimated cost, $150,000.

SHERMAN, MO.—The Meramec Portland Cement Co., 507 Bank of Commerce Bldg., St. Louis, will erect a plant at Sherman to cover about nine acres. The power plant will have a capacity of 3,000 HP. Cost of proposed work, $860,000. O. H. Sandy, 507 Bank of Commerce Bldg., St. Louis, is Engr.

ARGENTA (Little Rock post-office), ARK.—It is stated that the St. Louis Southwestern Ry. Co. will erect a 6-stall roundhouse at Argenta. M. L. Lynch, Tyler, Tex., is Ch. Engr.

SNYDER, OKLA.—The Snyder Ice & Cold Storage Co., recently incorporated, will erect a 12-ton ice plant and will erect a building 52 × 74 ft. at a cost of $35,000. Oles Stofer is interested.

MONTESANO, WASH.—R. N. Pilling, of Snohomish, Wash., will build a shingle mill of [illegible]0,000 daily capacity here. The plans have been furnished and construction will begin immediately. Mr. Pilling will build a sawmill in connection, to make cedar siding and other building material.

ECHO, ORE.—J. E. Murphy & Co. will establish an alfalfa meal factory here. The plant will cost about $30,000.

TORONTO, ONT.—Plans are being prepared by the Canadian Northern Ontario Ry. Co. for erection of shops on Eastern Ave. It is expected to start work within a month. A. J. Hills, Toronto, is Supt.

HAMILTON, ONT.—Ballinger Bros., Engrs., Fulton Bldg., Pittsburg, Pa., are preparing plans for a [illegible]-story brewery to be built at Hamilton. Brick and reinforced concrete will be used for construction. Cost, $250,000.

NELSON, B. C.—The British Columbia Wood Pulp & Paper Co., of Vancouver, B. C., is planning to erect a pulp and paper mill at the mouth of the Clowholm River. Application has been made for a record of 20,000 ins. of water for power purposes.

ESQUIMALT, B. C.—The B. F. Graham Lumber Co., of Victoria, B. C., is planning to erect a mill at Esquimault this season. Capacity 100,000 ft. per day. Estimated cost, $150,000. [illegible] L. Bettington is interested.

CONTRACT PRICES.

[Where * precedes items under Contract Prices the work was advertised in Engineering News.]

*CONCRETE VIADUCT.—Lynchburg, Va.—Bids were received by the Joint Council Committee on Streets and Sewers on April 30 for the construction of reinforced concrete viaduct over D St. H. L. Shaner is Ch. Engr. Bids in detail were as follows: (A) Monday Concrete Co., Knoxville, Tenn.; (B) W. M. Torrence, New York; (C) T. J. Shae, New Orleans, La.; (D) Alberthaw Construction Co., Boston; (E) E. G. Nave Bros. Co., Portsmouth, Ohio; (F) McCormick & Co., Philadelphia; (G) Gaither Constructing Co., Manassas, Va.; (H) Baltimore Ferro Concrete Co., Baltimore; (I) Concrete Steel Co., Cincinnati, Ohio; (J) Blackford-Petit-Barber Co., Knoxville; (K) Schillinger Bros. Co., Columbus, Ohio; (L) Chas B. Clark, Baltimore; (M) Curtis & Shumay, Lynchburg, Va.; (N) W. W. Lindsay & Co., Philadelphia; (O) Faragher Engineering Co., Asheville, N. C.; (P) J. Henry Miller, Baltimore; (Q) Blackstaff Engineering Co., Philadelphia; (R) Heines Bros. & Co., Canal Dover, Ohio; (S) Merrill Frazer Co., New York; (T) Scott Bros., Hardy, W. Va.; (U) Lane Bros Co., Lynchburg; (V) Luck Construction Co., Roanoke, Va.; (W) E. M. Lisle & Co., Birmingham, Ala.; (X) Hennebique Construction Co., New York; (Y) Cramp & Co., Philadelphia.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
1,350 cu. yds. earth excavation	$0.50	$1.00	$1.08	$1.36	$0.80	$1.00	$0.50	$0.98	$1.52½	$0.50	$0.50	$1.25	$0.78
150 cu. yds. rock excavation	1.50	1.50	1.50	4.00	1.50	2.00	1.00	2.23	5.64	.94	2.20	2.00	1.25
425 cu. yds. pipe trench excavation	.50	1.00	.75	1.10	.40	.75	.50	1.06	1.327	.63	.66	.45	.65
6,000 cu. yds. earth fill approaches	1.00	.70	.70	.60	.80	.65	.75	.60	.66	.63	.60	.45	.58
500 sq. yds. sodding	.25	.35	.25	.60	.25	.25	.20	.25	.24½	.25	.66	.40	.30
½ acre seeding	50.00	50.00	100.00	75.00	40.00	50.00	50.00	9.00	60.00	50.00	25.00	25.00	180.00
640 lin. ft. pipe railing	1.25	1.50	1.25	.92	.50	1.00	.60	1.56	.75	1.34	.88	1.75	.80
100 tons steel bars	56.00	55.00	75.00	56.70	60.00	57.00	42.00	59.00	64.50	75.00	53.00	65.00	55.00
800 cu. yds. concrete, Class A	8.00	6.80	7.90	5.83	6.90	5.50	7.86	6.52	8.96	6.00	6.00	6.50	8.50
500 cu. yds. concrete, Class B	10.50	10.72	10.80	10.46	8.00	8.00	7.86	10.70	10.35	7.41	8.87	11.50	12.00
940 cu. yds. concrete, Class C	9.00	7.00	9.00	6.80	7.25	8.00	7.86	6.70	7.96	7.04	6.50	8.75	9.00
620 cu. yds. concrete, Class D	8.75	8.00	8.75	7.71	7.75	8.00	7.86	8.45	9.43	6.60	7.57	8.00	9.50
40 cu. yds. concrete, Class E	12.50	11.50	14.50	13.20	8.75	10.00	7.86	13.60	8.59	9.00	8.10	9.50	9.00
1,100 cu. yds. concrete, Class F	15.00	11.50	12.00	12.50	11.75	12.00	8.28	10.20	8.37	7.37	9.50	13.00	11.00
55 cu. yds. concrete, Class G	5.00	3.50	5.00	4.70	4.00	4.50	7.86	3.48	3.80	2.63	3.70	3.00	5.00
20,000 sq. ft. surface dressing	.03	.05	.05	.09	.08	.05	.03	.059	.05	.05	.05	.11	.05
364 lin. ft. cast-iron drain pipe	.75	1.00	.90	.82	.75	.75	.50	.75	.50	.40	.62	.80	.40
1,900 lin. ft. electric ducts	.18	.40	.20	.16½	.10	.15	.15	.142	.19	.19	.15	.17	16
8 lamp post (single)	55.00	35.00	12.00	39.00	25.00	50.00	45.00	41.30	35.30	32.00	22.50	30.00	40.00
4 lamp post (cluster)	60.00	60.00	18.00	70.00	40.00	100.00	55.00	53.10	40.26	36.00	27.50	60.00	45.00
712 sq. yds. brick pavement	2.00	2.20	1.80	2.13	1.40	1.97	2.25	2.84	1.95	1.91	1.20	1.80	2.00
560 sq. yds. broken stone roadway	.75	.75	1.25	.47	.45	.60	1.00	1.37	.60	.50	.60	.80	.80
500 lin. ft. plank sidewalk	.40	1.00	.30	.47½	.35	.85	.28	.69	.46	.38	.30	.60	.45
Total	$60,411	$53,633	$58,344	$53,724	$51,222	$51,608	$46,530	$52,194	$53,884	$44,934	$45,248	$57,015	$55,180

	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)
1,350 cu. yds. earth excavation	$0.85	$0.58	$2.25	$0.40	$0.35	$1.00	$0.50	$0.40	$0.50	$1.20	$1.20	$0.90
150 cu. yds. rock excavation	3.00	1.16	3.50	1.75	1.50	3.00	1.25	1.25	2.00	3.00	5.00	2.00
425 cu. yds. pipe trench excavation	.90	.46	1.00	.47½	.80	2.50	.60	.50	1.00	.85	.75	.60
6,000 cu. yds. earth fill approaches	.50	.58	1.25	.52½	.50	.70	.50	.40	.80	1.00	.25	.45
500 sq. yds. sodding	.40	.87	2.00	.30	1.80	.30	.20	.40	.50	.35	.50	.23
½ acre seeding	50.00	15.00	300.00	57.50	50.00	30.00	150.00	40.00	50.00	10.00	200.00	20.00
640 lin. ft. pipe railing	.80	.93	3.10	1.15	.60	1.00	1.00	.75	.30	1.50	2.50	2.00
100 tons steel bars	68.00	52.00	57.00	69.00	60.00	58.00	60.00	80.00	55.00	75.00	44.00	65.00
800 cu. yds. concrete, Class A	6.25	5.06	10.00	5.75	6.50	5.60	6.00	6.50	13.50	8.20	10.60	8.86
500 cu. yds. concrete, Class B	11.50	7.73	15.00	8.75	9.00	8.25	9.20	13.00	13.50	12.30	16.00	11.32
940 cu. yds. concrete, Class C	8.00	5.55	14.50	8.25	8.00	8.00	8.00	9.00	13.50	8.30	14.00	9.83
620 cu. yds. concrete, Class D	7.50	6.04	14.50	7.50	7.50	8.00	8.00	8.50	13.50	9.40	11.00	9.76
40 cu. yds. concrete, Class E	13.00	11.55	20.00	14.00	13.20	12.00	7.50	10.50	13.50	9.00	14.75	10.31
1,100 cu. yds. concrete, Class F	18.00	9.38	19.50	11.50	8.50	12.25	11.85	14.00	13.50	16.70	24.65	23.00
55 cu. yds. concrete, Class G	4.00	2.93	4.50	3.00	4.50	3.00	4.00	4.00	13.50	4.40	3.50	4.48
20,000 sq. ft. surface dressing	.05	.06	.05	.06	.05	.10	.04	.20	.06	.02½	.08	.07
364 lin. ft. cast-iron drain pipe	.70	.70	2.15	.57½	.39	.50	.60	.60	.60	.50	1.00	.48
1,900 lin. ft. electric ducts	.15	.14	.40	.12	.15	.15	.14	.20	.35	.15	.50	.21
8 lamp post (single)	35.00	17.25	68.00	85.00	17.00	40.00	30.00	25.00	30.00	25.00	100.00	55.00
4 lamp post (cluster)	45.00	23.00	75.00	140.00	21.00	60.00	60.00	50.00	60.00	40.00	150.00	85.00
712 sq. yds. brick pavement	1.80	2.24	2.18	1.85	2.00	3.50	2.25	1.50	2.00	2.00	2.25	2.55
560 sq. yds. broken stone roadway	.70	.87	1.44	.92	.37	1.25	.50	.60	.80	1.25	1.30	1.00
500 lin. ft. plank sidewalk	.50	.58	.98	.60	.45	.50	.50	.40	4.50	.40	.70	.53
Total	$59,900	$43,009	$87.174	$51,734	$46,845	$55,341	$50,264	$60,112	$73,595	$66,034	$81,890	$71,938

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

DRAINAGE.—Boone, Iowa.—Bids are asked until May 15 by E. F. Jones, County Audr., for constructing tile drain No. 57.

CHIMNEY.—Eldora, Iowa.—Bids are asked by A. L. Murray, Secy. School Board, until 7.30 p. m., May 24, for the erection of one steel-concrete chimney.

CONCRETE WORK.—Toronto, Ont.—Bids are asked by the Harbormaster, 508 Board of Trade Bldg., Toronto, until noon, May 18, for concrete work at the Queen's Wharf.

BULKHEAD.—Fort Mansfield, R. I.—Bids are asked until June 1, by Maj. Wm. E. Horton, Q. M., U. S. A., New London, for repairing timber bulkhead at Fort Mansfield.

DITCH.—Crookston, Minn.—New bids are asked until May 27 by N. A. Hoffard, County Audr., Crookston, for digging and constructing County Ditch No. 72. Estimated cost, $18,000.

CEMENT.—National Military Home, Kan.—Bids are asked until May 16 by Maj. W. W. Martin, Treas. Western Branch, N. H. D. V. S., for furnishing and delivering 1,000 bbls. cement, etc.

LIGHT TOWER.—Fort Michie, N. Y.—Bids are asked until June 1 by Maj. Wm. E. Horton, Constr. Q. M., U. S. A., New London, Conn., for constructing a light and fog signal tower at Fort Michie.

DITCH.—Muncie, Ind.—Harry V. Moore, Supt. of Construction, states that bids are asked until May 14 for the construction of a ditch through Center and Mt. Pleasant Townships to cost about $25,000.

*LOCK AND DAM.—Vicksburg, Miss.—Bids are asked by Capt. Clarke S. Smith, Corps Engrs., U. S. A. until noon, July 13, for building Lock and Dam No 2 in Ouachita River at Harrisonburg, La.

DITCH.—Frankfort, Ind.—Bids are asked by Wm. A. Robison, Drainage Comr., until 2 p. m., May 23, for the construction of the Markwood Slipher ditch, known in the Clinton Circuit Court as Cause No. 709.

DITCH.—Olivia, Minn.—Bids were received on May 5 by H. J. Lee, County Audr., Olivia, for digging and constructing judicial ditch No. 2. The contract has been let to SUTCLIFF, BRYANT & CO., Renville, Minn., at $17,256.

IRON FENCE, GATES.—Columbus, Ohio.—The Board of Public Service has awarded contract No. 18, for 1,490 lin. ft. of iron fence and ten gates for the water purification works to the WM. BAYLEY CO., Springfield, Ohio, at $1,426.

VESSEL.—Washington, D. C.—The Quartermaster-General, U. S. A., Washington, D. C., has awarded to the NEWPORT NEWS SHIPBUILDING & DRY DOCK CO., Newport News, Va., contract for constructing a cable-laying vessel, at $194,000.

BULKHEAD.—Baltimore, Md.—Bids are asked by the Board of Awards, J. Barry Mahool, Pres., until 11 a. m., May 20, for the construction of a stone and timber bulkhead on the north side of Center Pier, Back Basin. O. F. Lackey, Harbor Engr.

RIPRAP.—New York, N. Y.—Bids are asked by the Department of Docks and Ferries until noon, May 25, for Contract No. 1132, for preparing for and building a riprap embankment and wall to close the gaps in the existing wall at Rikers Island, the Bronx.

BENDING PLATE MACHINE.—Sorel, Que.—Bids are asked until noon, May 18, by F. Gourdeau, Deputy Minister of Marine and Fisheries, Ottawa, Ont., for furnishing a machine for bending steel boiler plates, to be delivered at the Government shipyard at Sorel.

AIR COMPRESSOR.—Bremerton, Wash.—Bids are asked until 11 a. m., June 6, by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing and installing one 5,000 cu. ft. air compressor and accessories at Navy Yard, Bremerton.

WHARF REPAIRS.—Newport, R. I.—Bids are asked until 10 a. m., June 1, by Capt. Willis C. Metcalf, Q. M., U. S. A., 209 Thames St., Newport, for repairs to stone wharf at Fort Rodman, Mass. Plan and specifications are on file at office of Engineering News, New York.

FOG-SIGNAL BUILDING.—Portland, Ore.—Bids are asked by the Light-House Engr., Portland, until noon, June 1, for furnishing materials and labor for the construction, erection and delivery of a fog-signal building, oil and coal house, fences, walks, tramways, etc., at Cape Arago light station, Ore.

DREDGING.—New York, N. Y.—Bids are asked until 11 a. m., May 20, by Bird S. Coler, Pres. Boro. Brooklyn, for furnishing all the labor and material required for dredging at the head of Gowanus Canal. The engineer's estimate of the quantity is as follows: 3,700 cu. yds., scow measurement.

SLUICE GATES.—Chicago, Ill.—Bids are asked by the Department of Public Works, John J. Hanberg, Comr., until 11 a. m., May 14, for furnishing and delivering to the city of Chicago at various gate shafts on the line of the Blue Island Ave. land tunnel ten 8-ft. sluice gates, eight 6-in. valves and eight 6-in. strainers.

WALL, PIERS.—Boston, Mass.—Bids were received by the Boston Transit Commission on May 7 for building a reinforced concrete wall and foundation piers under the City Hospital Relief Station, Haymarket Sq. B. Leighton Beal, Secy., 15 Beacon St. The contract has been let to JOHN E. PALMER, Old South Bldg., Boston.

CONCRETE WALL.—New York, N. Y.—Bids are asked by the Department of Parks until 3 p. m., May 21, for furnishing all the labor and materials for completely erecting and constructing the concrete wall, piers and footing and reinforced concrete posts, surmounted by an electrically-welded iron fence, on the eastern extension of Bronx Park, New York.

FIRE HOSE.—New York, N. Y.—Bids were received May 6 by Nicholas J. Hayes, Fire Comr., for furnishing and delivering 7,000 ft. of 3½-in. rubber fire hose for Borough of Manhattan. Also for furnishing and delivering 3,000 ft. of 3½-in. rubber fire hose for Borough of Brooklyn. Contract has been let to B. F. GOODRICH CO. of N. Y., 66 Reade St., at $2.20 a ft.

DRAIN.—Roanoke, Va.—Bids were received as follows on April 23 by W. B. Bates, City Engr., for construction of Lick Run drain. Estimated quantities: 390 cu. yds. rubble masonry in wall; 90 cu. yds. concrete invert bottom; 139 cu. yds. concrete slab top; 1,100 cu. yds. excavation: R. M. Bibb, $5,580; C. Markley, $5,278; the Roanoke Concrete Co., $4,760; Muddiman & Co., $4,661.

DREDGING.—Wilmington, Del.—Bids were received as follows on May 4 by Maj. C. A. F. Flagler, Corps Engrs., U. S. A., Wilmington, for dredging for improvement of Tuckerton Creek, N. J.: River and Harbor Improvement Co., Mariner & Merchant Bldg., Philadelphia, Pa., 34.8 cts.; Charles P. Grim, Philadelphia, Pa., 16.5 cts.; Pennsylvania Dredging Co., Camden, N. J., 29 cts.

*DREDGING.—Bangor, Me.—Bids were received as follows on May 7, by Maj. George A. Zinn, Corps. Engrs., U. S. A., 537 Congress St., Portland, Me., for (a) 9,000 cu. yds. ledge excavation, and (b) 15,000 cu. yds. dredging in Penobscot River at Bangor: Eastern Dredging Co., Boston, Mass. (a) $13.80 per cu. yd., (b) 85 cts. per cu. yd.; Johnston & Virden, Lewes, Del., (a) $14.50 per cu. yd., (b) 90 cts. per cu. yd.

*DREDGING.—Wilmington, Del.—Bids were received as follows on May 7 by Maj. C. A. F. Flagler, Corps Engrs., U. S. A., Wilmington, Del., for dredging Mantua Creek, N. J.: American Dredging Co., Philadelphia, 15.7 cts. a cu. yd.; Pennsylvania Dredging Co., Camden, N. J., 20 cts.; River & Harbor Improvement Co., Philadelphia, 20.8 cts.; Edward J. Fonde, Philadelphia, 21 cts. Amount available, $9,500.

*DOCK, DREDGING.—Chicago, Ill.—Bids were received by Col. W. H. Bixby, Corps Engrs., U. S. A., on May 9, for dock construction in the Chicago River, and for dredging in the Calumet River, Ill.: The Great Lakes Dredge & Dock Co., Chicago, Ill., was lowest bidder for dock construction in Chicago River. Amount of bid, $10,375. This firm was also lowest bidder for $108,000 worth of dredging in Calumet River at a unit price of 22.9 cts. per cu. yd.

*CONCRETE SEAWALL.—Key West, Fla.—Bids were received as follows on May 1 by Capt., C. H. Lanza, Q. M., for constructing at Fort Taylor, this city, a reinforced concrete seawall about 2,200 ft. long; and for making a fill in rear of same about 250,000 cu. yds.: Howard Trunbo, Key West, Fla., $59,580; Ferguson & Ward, Key West, $85,000; Snare & Triest Co., New York, $63,500; Penn Bridge Co., Beaver Falls, Pa., $55,400 (alternate, $52,400); Bryan & Co., Jacksonville, Fla., $79,028.

*JETTY.—Savannah, Ga.—Bids were received as follows by Lieut.-Col. Dan C. Kingman, Corps Engrs., U. S. A., at noon, May 7, for raising and repairing the south jetty at Cumberland Sound, Ga., and Fla., Simons-Mayrant Co., Charleston, S. C., $99,900; John G. McGiffen & Co., Fernandina, Fla., $78,300; D. Power & Co., Savannah, Ga., $97,500; Wm. L. Miller, Boston, Mass., $80,400; Roderick G. Ross, Jacksonville, Fla., $74,100. It has been recommended that the bid of Roderick G. Ross be accepted.

*SEA WALL, ETC.—Boston, Mass.—Bids were received as follows on May 6, by Capt. Ira L. Fredendall, Const. Q. M., 263 Summer St., Boston, for the construction of a reinforced concrete sea wall, riprap revetment, etc., at Fort Warren, Boston, Harbor: McHale & Perkins, Boston, Mass., $13,053; Aberthaw Construction Co., Boston, Mass., $16,858; Antony Cefalo, Roslindale, Mass., $16,868; W. A. Murtfeldt Co., Boston, Mass., $16,894; Armstrong Concrete Specialty Co., Boston, $20,224; Fred. T. Ley & Co., Inc., Springfield, Mass., $22,280; W. L. Miller, Boston, Mass., $22,727.

*AMMUNITION HOISTS.—Salem, N. J.—Bids were received on April 30, as follows by Maj. C. A. F. Flagler, Corps Engrs., U. S. A., Wilmington, Del., for furnishing and delivering two ammunition hoists at Fort Mott, N. J.: Geo. F. Motter's Sons, York, Pa., $4,600; Heyl & Patterson, Inc., Pittsburg, Pa., $5,620; Hoisting Machinery Co., New York, $4,080; G. & W. Mfg. Co., New York, $4,460; Bethlehem Foundry & Machine Co., South Bethlehem, Pa., $6,300; Fore River Shipbuilding Co., Quincy, Mass., $5,800; New Jersey Foundry & Machine Co., New York, $4,800; The Derrick & Harvey Machine Co., Baltimore, Md., $3,400.

*SEA WALL, WHARVES.—San Francisco, Cal.—Bids were received as follows on May 4, by Geo. McK. Williamson, Constr. Q. M., Fort Mason, for construction at Fort Mason, San Francisco, Cal. of a sea-wall, crib wall, transport wharves and sheds for new Army Supply Depot.: Warren Improvement Co., 109 Montgomery St., San Francisco, $1,826,310; Ferrolite Co., 338 Pine St., San Francisco, $1,774,206; P. J. Carlin Construction Co., 16 East 23d St., New York, $1,178,000; Penn Bridge Co., Beaver Falls, Pa., $1,624,400; San Francisco Bridge Co., 865 Monadnock Bldg., San Francisco, $1,479,000; Pacific Construction Co., 16 California St., San Francisco, $1,825,000; Robert Wakefield, Portland, Ore., $1,673,023.

Alternate bids on plans and specifications prepared by the bidder: P. J. Carlin Construction Co., 16 East 23d St., New York, $1,098,000; L. J. Mensch and C. [illegible], 12 Market St., San Francisco, $1,348,900; Healy Tibbitts Construction Co., 268 Market St., San Francisco, $1,749,000; San Francisco Bridge Co., 865 Monadnock Bldg., San Francisco, $1,297,000; Pacific Construction Co., 16 California St., San Francisco, $1,787,000.

RACE TRACK, BUILDINGS, ETC.—Portland, Ore.—The Portland Country Club and Live Stock Association will improve its grounds and erect buildings as follows: One-mile race track, containing 70,000 cu. yds. excavation. WESTERN CONTRACTING & ENGINEERING CO., contractors. Work will be completed about June 15. L. E. BARBER, contractor, is erecting eight race horse stables, 40 × 120 ft., to be completed July 15. Contract for the erection of five show horse stables, 36 × 229 ft., will be let this week. To be completed in 60 days. Contract for the erection of five show stables for cattle, sheep and swine will be let about June 20. Size 65 × 185 ft. Contracts for erection are awarded separately from lumber hardware and cement contracts. Grand-stand with seating capacity of 2,550 will have roof supported by cantilever trusses on lattice posts with concrete foundations. AMERICAN BRIDGE CO., of Chicago, has been awarded contract for steel work.

Auditorium for horse shows and exhibitions of fine stock will be 182 × 292 ft. with 80 × 190-ft. arena. It will not be erected until later in the season. Edgar M. Lazrus, Worcester Block., Portland, Ore., is Arch. Newell, Gossett & Walsh, 32 Washington Bldg., Portland, are the Engrs. and Superintendents.

SUBWAY.—New York, N. Y.—Bids were received as follows by the Public Service Commission, First District, on May 8, for construction of six sections of the Fourth Ave. subway in Boro. of Brooklyn—(1) Flatbush Ave. extension, Nassau St. to Willoughby St., Manhattan Bridge, No. 1; (2) Willoughby St. to Ashland Place; (3) Fourth Ave. and Ashland Place to Fulton St. and Sackett St.; (4) Fourth Ave., Sackett St. to Tenth St.; (5) Fourth Ave., Tenth St. to 27th St.; (6) Fourth Ave., 27th St. and 43d st.; (a) pipe galleries; (b) railroad work:

Section (1): William Bradley, foot 68th St. Hudson River, (a) $189,150, (b) $1,690,903; Borough Construction Co. and Charles Cranford, 44 Court St., Brooklyn, (a) $150,015, (b) $1,464,705; Millard Construction Co., Pennsylvania Bldg., Philadelphia, (a) $153,305, (b) $1,517,919; Rogers & Haggerty, (a) $118,000, (b) $1,374,000; Cranford Company, 52 North St., Brooklyn (a) $200,864, (b) $1,941,978; S. Pearson & Son, First Ave. and 33d St., (a) $162,763, (b) $1,476,459; Degnon Contracting Co., 60 Wall St., (a) $136,590, (b) $1,506,190; James P. Graham, Bensonhurst (L. I.), N. Y., (a) $101,374, (b) $1,020,476; Gore Engineering & Contracting Co., 206 Broadway, (a) $232,572, (b) $1,685,427; Westinghouse, Church, Kerr & Co., 230 West 31st St. (informal bid).

Section (2): Millard Construction Co. (a) $38,987, (b) $3,729,344; Degnon Contracting Co., (a) $34,750, (b) $5,750,085; William Bradley, (a) $58,695, (b) $3,436,019; Cranford Company, (a) $80,507, (b) $5,231,495; Westinghouse, Church, Kerr & Co. (informal bid).

Section (3): Degnon Contracting Co., (a) $121,210, (b) $4,766,587; William Bradley, (a) $208,135, (b) $3,392,091; Cranford Company, (a) $250,935, (b) $4,800,574; Westinghouse, Church, Kerr & Co. (informal bid).

Section (4): Washington Construction Co., 1 Broadway, (a) $215,000, (b) $3,090,000; S. Pearson & Son, (a) $258,790, (b) $2,659,631; Millard Construction Co., (a) $280,383, (b) $2,456,155; E. E. Smith Construction Co., (a) $206,672, (b) $2,283,553; Gore Engineering & Contracting Co., (a) $308,877, (b) $2,828,195; William Bradley, (a) $325,805, (b) $2,851,620.

Section (5): James P. Graham, (b) $1,413,635; Millard Construction Co., (a) $415,180, (b) $2,595,503; Gore Engineering & Construction Co., (a) $414,969, (b) $2,837,908; Phoenix Construction Co., 13-21 Park Row, (a) $481,000, (b) $3,128,000; S. Pearson & Son, (a) $327,229, (b) $2,508,031; E. E. Smith Constr. Co., (a) $303,512, (b) $2,218,566; William Bradley, (a) $428,715, (b) $3,057,764; Thos. B. Bryson, 25 West 26th St., (a) $251,076, (b) $1,945,640; Westinghouse, Church, Kerr & Co. (informal bid).

Section (6): E. E. Smith Construction Co., (a) $173,665, (b) $2,808,982; William Bradley, (a) $217,950, (b) $3,523,435; Millard Construction Co., (a) $200,205, (b) $3,326,412; Remington & Sherman Co. and F. W. Carlin, Washington St., Brooklyn, (a) $299,000, (b) $2,799,000; S. Pearson & Son, (a) $184,316, (b) $3,532,624; Westinghouse, Church, Kerr & Co. (informal bid).

Westinghouse, Church, Kerr & Co., Inc., sent a letter, which was placed on record with the other bids, proposing to construct the entire six sections of the subway, with pipe galleries, under the immediate supervision of the Public Service Commission, on an actual cost and pay-as-you-go principle, to be based on units of cost to be determined upon beforehand. Chairman Willcox said this proposition would receive careful consideration.

U. S. POSSESSIONS AND CUBA.

(denotes that this work is advertised in Engineering News.)*

CANAL SUPPLIES.—Panama.—Bids were received as follows on April 30 at the Isthmian Canal Commission, Washington, D. C., for (a) 20,000 standee canvas bottoms, 40,000 side rods, 40,000 end rods, and (b) 1,000 leatherette chair bottoms: Lowest bidders: (a) John P. Lyons, New York, $22,390; (b) Julius Lansburgh Furniture & Carpet Co., Washington, D. C., $115.50.

*BREAKWATER.—Hawaii.—Bids were received by Capt. C. W. Otwell, Corps Engrs., U. S. A., Honolulu, on March 31, for construction of breakwater or for stone for breakwater construction at Hilo Harbor, Hawaii, T. H. (Advertised on Jan. 30). Bids were as follows—(A) price per ton of 2,000 lbs. for stone placed in breakwater; (B) price per ton delivered at breakwater: D. E. Metzger, Hilo, Hawaii, (A) $2.48½; (B) $1.89; stone to be obtained from Puna district. R. A. Perry, San Francisco, Cal., (A) $2.97; (B) $2.53; stone to be obtained from Waiakea plantation. San Francisco Bridge Co., San Francisco, (A) $2.88; stone to be obtained from Puna quarry. G. H. Mayer, Honolulu, (A) $2.10; (B) $1.80; stone to be obtained from land held by L. A. Andrews, from Waiakea Mill Co. About $400,000 will be available for this work.

LUMBER.—Panama.—Bids were received as follows May 1 at the office of the Isthmian Canal Commission, Washington, for the furnishing of (a) 1,400,000 ft. B. M. of bridge timber, and (b) about 6,000 untreated piles: A. S. Bacon & Sons, 2 Bay St. West, Savannah, Ga., (a) $33,010, $36,137, (b) $68,865; G. S. Baxter & Co., 15 William St., New York, (a) $37,942, $33,618, $31,994, (b) $83,363, $64,335; Chicago Lumber & Coal Co., St. Louis, (a) $36,452, $32,977, (b) $73,625; DEFIANCE LUMBER CO., Tacoma, Wash. (awarded contract), at (a) $28,044, 90 days; Arthur Gamwell, Seattle, Wash., (a) $32,593, (b) $96,049; J. K. Joice, 164 Dearborn St., Chicago, (a) $37,247, $32,778; Long-Bell Lumber Co., Kansas City, Mo., (a) $36,533; S. E. Naylor & Co., Gulfport, Miss., (a) $33,522, $65,149; Pacific Creosoting Co., Seattle, Wash., (b) $101,488; Seattle Timber Supply Co., Seattle, Wash., Seattle delivery, (b) $29,036; St. Paul & Tacoma Lumber Co., Tacoma, Wash., Tacoma delivery, (a) $17,170; American Tie & Lumber Co., 11 Broadway, New York, (b) $58,354; D. L. Gillespie & Co., Pittsburg, (a) $34,940, $31,797, $30,230; Southern Sawmill Co., New Orleans, (a) $43,384, $37,187, (b) $61,616; G. Elias & Bro., Buffalo, N. Y., (a) $32,808, (b) $77,647; Wm. B. Glafke, Portland, Ore., (a) $33,528 (b) $199,845.

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CIVIL SERVICE EXAMINATIONS.

DOCKMASTER.—New York, N. Y.—Applications will be issued and received by the Municipal Civil Service Commission, 66 Lafayette St., until 4 p. m., May 26, for the position of Dockmaster. No application received by mail or otherwise after 4 p. m., on May 26 will be accepted. Age limit, 21 years. Salary, $1,800 a year. F. A. Spencer is Secy. Municipal Civil Service Comn.

ELECTRICIAN-ELEVATOR CONDUCTOR.—Tampa Fla.—An examination will be held by the U. S. Civil Service Commission on June 17 to fill a vacancy in the position of electrician-elevator conductor, $900 a year, in the Custodian Service at Tampa, Fla., and vacancies requiring similar qualifications as they may occur in the Custodian Service in that city. As the Commission has experienced considerable difficulty in securing eligibles to fill this position, qualified persons are urged to apply. Age limit, 18 to 55 years. Application Form 1052.

LUMBERMAN.—Washington, D. C.—An examination will be held by the U. S. Civil Service Commission on May 20 to secure eligibles from which to make certification to fill several vacancies in the position of Lumberman, at $1,800 a year each in the Forest Service, Dept. Agriculture, and vacancies requiring similar qualifications as they may occur. Appointees are paid expenses while traveling. Age limit, 20 years or over. Appointees must be physically able to conduct field examinations for timber sales, make estimates, and do other hard field work in connection with timber sale administration. Application Forms 1093 and 1600.

SCALER.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on May 21 to secure eligibles from which to make certification to fill several vacancies in the position of Scaler, at $1,400 a year each, in the Forest Service, Dept. Agriculture, and vacancies requiring similar qualifications as they may occur. Appointees are paid expenses while traveling. Age limit, 20 years or over. Appointees must be physically able to do hard field work in connection with scaling or logging operations. This examination is open to all citizens of the United States who comply with the requirements. Application Forms 1093 and 1600.

SUPERINTENDENT, TELEPHONE CONSTRUCTION.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on June 1 to secure eligibles from which to make certification to fill a vacancy in the position of Superintendent, Telephone Construction, in the Forest Service, at $1,500 a year, and vacancies requiring similar qualifications as they may occur at the same or a lower salary. These positions are for field service in the western part of the United States, with no permanent station, and require much travel. Employees are paid traveling expenses from station to station. No educational test will be given, and it will not be necessary for applicants to appear at any place for examination. Age limit, 20 to 50 years. Application Forms 1093 and 1600.

PLANT ECOLOGIST (MALE).—Washington, D. C.—The U. S. Civil Service Commission announces an examination on June 1 to secure eligibles from which to make certification to fill a vacancy in the position of Plant Ecologist (male) in the Forest Service, Dept. Agriculture, at $1,400 a year, and vacancies requiring similar qualifications as they may occur. The duties of the position are the investigation of the natural revegetation of overgrazed range lands within the national forests, and a study of the life history of forage plants. It will not be necessary for applicants to appear at any place for examination. Applicants must file with their applications full and detailed statements showing their experience in botanical research and, if any, the experience they have had in the management of grazing live stock upon the public lands. Age limit, 21 to 40 years. Application Form 1312.

INDUSTRIAL NOTES.

THE AMSLER ENGINEERING CO., Pittsburg, Pa., was on April 25 declared insolvent and W. O. Amsler and A. C. Davis appointed receivers to close up the business.

A. A. KNUDSON, E. E., New York City, has removed his offices to 50 Pine St., where his facilities for electrolytic examinations may be carried on to better advantage.

THE FORT WAYNE ELECTRIC WORKS, Fort Wayne, Ind., announces the removal of its New York office from 40 New St. to the Hudson Terminal Bldg., 30 Church St.

THE LINK CHAIN BELT CO., 52 Dey St., New York, reports an increase in the volume of business and has in consequence enlarged its office and wareroom facilities. The company has recently published a new 210-page catalog describing their hoisting, conveying and transmission machinery.

THE PLATT IRON WORKS, Dayton, O., through its Chicago office, recently booked an order from the Illinois Steel Co., South Chicago, for two 30,000,000-gallon Platt Turbine Pumps, this order being influenced largely by the result of test of the four 25,000,000-gallon pumps recently shipped to the Indiana Steel Co. for the new Gary plant.

THE KENNICOTT WATER SOFTENER CO. announces the removal of its Chicago office from 527 Railway Exchange to 601 Corn Exchange Building. It also announces the completion of its new forge and plate forming shop, which, with the angle bending plant recently installed, increases the capacity for tank and steel plate work over 50%.

THE CHICAGO, MILWAUKEE & ST. PAUL Railroad has placed an order with the American Locomotive Company for fifty locomotives to be delivered this summer, according to the New York Times. They are to be of the Prairie type and are ordered presumably in connection with the opening of parts of the road's extension to the Pacific Coast, the first section of which to Butte, Mont., was recently completed. The cost of these locomotives will be close to $1,000,000.

TECHNICAL PUBLICITY ASSOCIATION.—At the annual meeting of this society, held April 30, the following officers were elected: President, C. S. Redfield, Adv. Mgr., Yale & Towne Mfg. Co., N. Y.; 1st Vice-President, Rodman Gilder, Publicity Mgr. Crocker-Wheeler Co., Ampere, N. J.; 2d Vice-President, C. N. Manfred, Mgr. Adv. Dept. H. W. Johns-Manville Co., N. Y.; Secretary, H. H. Kress, Publicity Dept. A. S. Cameron Steam Pump Wks., N. Y.; Treasurer, H. M. Davis, Adv. Mgr., Sprague Electric Co., N. Y.

AT THE ANNUAL ORGANIZATION meeting of the Board of Directors of MacArthur Brothers Co., Chicago, Ill., held April 28, 1908, the following officers were elected to serve for the ensuing year: President, Arthur F. MacArthur; Vice-President and Treasurer, John R. MacArthur; Vice-President and Assistant Treasurer, Samuel J. Mills; Vice-President and General Manager, F. C. Hitchcock; Secretary, John Everett; Assistant Secretary, Sebre M. Baldwin; General Counsel and Attorney, Henry M. Magee.

THE BUSINESS INTERESTS of the H. W. Johns-Manville Co. in the City of Detroit and the territory adjacent thereto have increased to such an extent that a new branch is about to be opened by that company at No. 72 Jefferson Ave., Detroit. This office will be under the management of Willard K. Bush, who was connected with the Milwaukee Branch of the company for a number of years. The company will carry a complete stock of goods at the Detroit Branch, so that shipments can ordinarily be made direct from Detroit stock.

THE MESTA MACHINE CO., of Pittsburg, Pa., has developed a line of heavy horizontal gas engines ranging from 500-HP. to 4,000-HP. capacity, suitable for use with producer gas or gas from blast furnaces or by-product coke ovens. The engines are built either tandem or twin-tandem and simple valve gear has been adopted in which both inlet and exhaust valves are driven from a single eccentric. The engines have been designed by Mr. Frederick Otteson, who has spent over a year in the development of this new line of gas engines.

DR. JEAN ROBT. MOECHEL, CHEMICAL ENGINEER, AND BURTON LOWTHER, CIVIL ENGINEER, have incorporated under the name of the Moechel & Lowther Engineering Co., with office and laboratories at 1110-1112 Wyandotte St., Kansas City, Mo. This Company will specialize in industrial engineering work and the utilization of by-products. Dr. Moechel has for many years been identified with the cement and clay industry of the Middle West, the development of metal and mineral properties and sanitary work. Mr. Lowther, the junior member, has been in charge of general construction and development work in the Eastern and Western States.

THE DARLEY ENGINEERING COMPANY, New York, N. Y., has been organized for the purpose of engineering, manufacturing and selling machinery and appliances for the hoisting and conveying of materials by suction and by air-pressure. This company has acquired the sole rights for the United States, to manufacture and sell the suction conveyor heretofore controlled by the Economic Engineering & Construction Co., of Chicago, and has taken over the business of the Economic Engineering & Construction Co. and the Darley Co., of Pittsburg. W. W. Darley, President, will have charge of the Pittsburg office in the Farmers' Bank Bldg. W. A. Stadelman, Vice-President, and M. D. Chapman, Secretary and Treasurer, will have charge of the New York office at 80 Broadway. W. A. Sharp, Vice-President, will have charge of the Western business with headquarters in the Monadnock Blk., Chicago.

THE AMERICAN WELDING CO., a Pennsylvania corporation, with a capital of $100,000, which recently succeeded to the business of the Morton Iron Works, of Greenpoint, Brooklyn, N. Y., has just completed at Carbondale, Pa., a large and modern plant for the manufacture of welded steel tanks for ammonia, carbonic acid, chlorine, and other gases under high pressures; shells, furnaces, steam drums, mud drums and headers for steam boilers; ice machine and refrigerating machine shells and tanks; paper pulp digesters; wood vulcanizing cylinders; chemical treatment cylinders; water pipe of large diameter and length, with welded-on flanges and other work in which the use of riveted seams is either undesirable or impracticable. The plant includes a machine welding shop, 82 ft. wide, two stories high, with central crane way of 200 ft. for overhead traveling crane of 40-ft. span; a hand welding shop 38 × 123 ft., one story high; a storage warehouse 22 × 41 ft., two stories high; an office building 43 × 27 ft., one story with vault extension 16 × 10 ft. and basement; a power-house 36 × 39 ft., and a fuel gas generating house 25 × 25 ft. and a gas holder [illegible] on tank, occupying a site of four acres [illegible] ted on the Delaware & Hudson Railroad [illegible] North Carbondale; it also has track c[illegible] tions with the Erie Railroad and the Ne[illegible] rk, Ontario & Western Railroad, so that [illegible] hipping facilities are of the best. The [illegible] t is fully provided with overhead trave[illegible] ranes, air and hand hoists; an industria[illegible] way equipment, is lighted by electrici[illegible] and has a complete system of fire prote[illegible] The machinery is operated by electri[illegible] hydraulic power and all has been specia[illegible] lt for the particular work in view. A 2[illegible] P. Wickes vertical boiler supplies the s[illegible] for power and heat. The officers of th[illegible] pany are Chas. L. Rowland, Preside[illegible] Alfred P. Trautwein, Vice-President, a[illegible] Frank A. Dempsey, Secy. and Treas.

TRADE PUBLICATIONS.

STEEL CONDUIT SUPPLIES.—[illegible] Sprague Electric Co., 527 W. 34th St., New York City. Circular 428. Paper; [illegible] 6 ins.; pp. 8; illustrated.

Several stamped steel outlet [illegible] and fittings are shown here with pric[illegible].

ELECTRIC-LIGHTING CIRCUIT [illegible] TINGS.—H. Krantz Manufacturing Co., 160 Seventh St., Brooklyn, N. Y. Bulletin 20. Paper; 7 × 10 ins.; pp. 2[illegible]; illustrated.

This bulletin is mainly a price [illegible] of panel boards and accessories.

ARC LIGHTING SYSTEM.—F[illegible] Wayne Electric Works, Fort Wayne, Ind. Bulletin 1103. Paper; 8 × 10½ [illegible]

Lamps, switchboard, transformer, regulator and all accessories for a [illegible] alternating-current arc lighting system, taking current from a constant potential circuit, are shown.

INVERTED GAS LAMPS.—The Welsbach Co., Gloucester, N. J. Bulletin 13. Paper; 7½ × 9 ins.; pp. 16; illustrated.

"Show Window Illumination by the Reflex Light," is the title of a paper by Mr. T. J. Little, Jr., in which two schemes of lighting store windows by gas lamps are exploited.

PRECISION ELECTRIC METERS.—The Westinghouse Electric & Manufacturing Co., Pittsburg, Pa. Circular 1104. Paper; 7 × 10 ins.; pp. 54; illustrated.

This bulletin contains a great amount of general information about several portable, precise, wattmeters, voltmeters, ammeters, power-factor meters and accessories.

PRESSED STEEL POLES.—The Pressed Steel Pole Co., Pittsburg, Pa. Paper; 6 × 9 ins.; pp. 20; illustrated.

An unique line of steel poles for telegraph, telephone, trolley, and electric lighting circuits, for signals, semaphores, arc lamps, etc., is shown in this catalog with several more or less fancy fittings for cross arms, brackets, etc.

STORAGE BATTERIES.—General Storage Battery Co., Boontown, N. J. Bulletin 9. Paper; 8 × 10½ ins.; pp. 8; illustrated.

A process for depositing inert substances in the pores of negative accumulator plates, formed by the Planti process is described in this publication. This process was invented by Mr. Joseph Bijur to prevent the loss of capacity by contraction of the oxide mass.

BELTED ALTERNATORS.—Fort Wayne Electric Works, Fort Wayne, Ind. Bulletin 1104. Paper; 8 × 10½ ins.; pp. 7; illustrated.

The mechanical construction of a line of two and three-phase belt-driven alternators is pictured. This line was designed especially for stations where it was desired to add a day load of multiphase motors without greatly increasing the capital invested in the plant.

FAN MOTORS.—Fort Wayne Electric Works, Fort Wayne, Ind. Bulletin 1105. Paper; 8 × 10½ ins.; pp. 8; illustrated.

This company's line of fan motors for direct and alternating-current circuits, forms the theme of this bulletin. The particular novelty is a fan, arranged to be suspended by a plug connection from an ordinary fixture. This fan revolves about its point of suspension and directs its breeze to all parts of the room in succession.

FIBER CONDUIT.—The Fiber Conduit Co., Orangeburg, N. Y. Paper; 3½ × 10 ins.; illustrated.

One of these leaflets describes some general tests, electrical, mechanical and chemical, on "Orangeburg" brand of fiber conduit, carried out by the Electrical Testing Laboratories, New York City.

A thin-wall, butt-joint type of "Orangeburg" fiber conduit known as "Linaduct," is described in a second folder.

ELECTRIC MOTORS AND GENERATORS.—The Sprague Electric Co., 527 W. 34th St., New York City. Instruction Book 226. Paper; 3½ × 6 ins.; pp. 32; illustrated.

The construction and operation of the peculiar "round-type" of motors and generators made by this concern are briefly explained. Recommendations for installation, care and adjustment and several sheets of wiring diagrams complete the pamphlet.

MOTOR CYCLES.—Aurora Automatic Machinery Co., Aurora, Ill. Paper; 8½ × 11 ins.; pp. 12; illustrated.

The "Thor" motor cycle is described in this bulletin.

ALUNDUM ABRASIVE.—The Norton Co., Worcester, Mass. Paper; 3½ × 6¼ ins.; pp. 10; illustrated.

The process of converting bauxite into a superior abrasive is set forth.

MACHINE TOOLS.—Miami Valley Machine Tool Co., Dayton, Ohio. Paper; 6 × 3½ ins.; pp. 12; illustrated.

Attention is drawn by this small publication to a line of lathes and sensitive drills.

TOBIN BRONZE.—The Ansonia Brass and Copper Co., 99 John St., New York City. Paper; [illegible] × 7 ins.; pp. 34; illustrated.

Acid tests, physical properties, weights, etc., of this well-known alloy are presented in brief form.

VERTICAL GAS ENGINES.—The Bruce-Meriam-Abbott Co., Cleveland, Ohio. Paper; 6 × 9 in.; pp. 16; illustrated.

A line of gas engines for small power generating units, 12 to 200-HP., is shown in detail in this book.

KEROSENE-OIL ENGINES.—The Remington Oil Engine Co., Stamford, Conn. Paper; 5½ × 7½ ins.; pp. 24; illustrated.

The design, construction and operation of the stationary and marine engines, for oil fuel, made by this concern are elaborately set forth.

PEAT WORKING MACHINERY.—Julius Bordollo, Kingsbridge, New York City. Paper; 9 × 11½ ins., pp. 28; illustrated.

This publication is a collection of sheets describing peat digging machines, moss-litter willows, baling presses, breakers, mixers, etc., made by A. Heinen, Varel, Oldenburg, Germany.

ELECTRIC HEATERS.—General Electric Co., Schenectady, N. Y. Paper; 5¼ × 8 ins.; pp. 12; illustrated.

In this pamphlet the use of luminous heat radiators is shown by photographs of model installations. These radiators consist essentially of dull incandescent bulbs in front of a copper reflector and their heat is largely radiated in one direction.

POWER PLANT VALVES.—Schutte & Koerting Co., Philadelphia, Pa. Catalog 8, Sections A to D. Paper; 8 × 11 ins.; pp. 88; illustrated.

Appliances such as hard-bronze, cast iron, air furnace iron, openhearth steel valves in all the common types, in stop, check, emergency, balanced, throttle, balanced trip and trip throttle valves are described at length.

TRAVELING CRANES.—Northern Engineering Works, Detroit, Mich. Paper; 5½ × 3¼ ins.; pp. 32; illustrated.

This pamphlet contains mainly a series of half-tone engravings of various electric cranes. There are also some pneumatic and hand-operated cranes, stationary jib cranes and overhead trolley carriers.

SANDS.—Water-Works Engineering & Supply Corporation, P. O. Box 260, Norfolk, Va. Sheet, 8 × 11 ins.

Those having occasion to buy sand for water or sewage purification purposes, glass or mirror-polishing, will be interested in this circular, which states that the company named is ready to grade and ship sand in bulk or in bags. It also stands ready to ship graded gravel.

MILLING MACHINES.—The Garvin Machine Co., Spring and Varick Sts., New York City. Catalog C. Paper; 6 × 9 ins.; pp. 96; illustrated.

Standard universal and plain milling machines, hand, motor-driven, vertical and constant-drive types, cutters, tool grinders, die slotters and general milling tools are described in this catalog in English, German and French.

OPTICAL INSTRUMENTS.—Bausch & Lomb Optical Co., Rochester, N. Y. Paper; 4 × 7 ins.; pp. 32; illustrated.

The well known firms of Bausch & Lomb Optical Co., Carl Zeiss and Geo. N. Saegmuller have associated under the name of the first concern. This pamphlet gives biographical sketches of the founders of these constituent concerns.

MARINE MOTORS.—The New London Motor Co., New London, Conn. Paper; 5 × 9 ins.; pp. 24; illustrated.

The design, construction and operation of the "Pequot Gasoline Engines" are carefully given here. These engines are single and multiple cylinder, two-stroke cycle types designed for marine work. A small HP. stationary type is made however. Tables of dimensions and part are appended.

CARD-INDEX RECORDS FOR RAILWAYS.—The Yawman & Erbe Mfg. Co., Rochester, N. Y. Paper; 7 × 9 ins.; pp. 56; illustrated.

The possibilities of the card-index system in railway offices are very clearly shown by this comprehensive and interesting pamphlet. The system of records of bridges and bridge inspections is already in use on two leading railways, and there is a special system of records for maintenance-of-way and construction work. For the motive power department there are records and files for lists of equipment, boiler and fire-box work, engine service, shop equipment, etc. Various other records are shown for the passenger, freight, accounting, purchasing and other departments. The illustrations show the various styles of cards and the way in which the records are kept.

ALTERNATING CURRENT SIGNALLING.—The Union Switch and Signal Co., Swissvale, Pa. Paper; 6 × 9 ins.; illustrated.

Bulletin No. 33 is a reprint of an article in "Railroad Gazette" of Jan. 17, 1908, on alternating-current, automatic block signals on the New York, New Haven & Hartford R. R.

Accompanying the above bulletin is a catalog and price list of interlocking and signalling devices made by this company.

PURIFICATION OF BOILER FEED WATER.—Wm B. Scaife & Sons Co., Pittsburg, Pa. Paper; 6 × 9 ins., pp. 29; illustrated.

Two articles by Mr. J. C. W. Greth, Mem. Chem. Soc., manager of the water-purifying department of the above named concern, in the February and March, 1908, issues of the Engineering Magazine are reprinted to form this monograph. The author especially considers the savings effected in purifying boiler feed water.

CRUSHERS, PULVERIZERS AND FEEDERS.—The C. O. Bartlett & Snow Co., Cleveland, O. Catalog No. 25. Paper; 6 × 9 ins.; pp. 32; illustrated.

The company has sent out a special catalog devoted to coal, stone and ore crushers and mills, disintegrators for bones, phosphates, clays and similar substances, and feeders of large and small capacity. Full illustrations of these machines as well as of some plants using them, are presented. Prices accompany the specifications.

LUMINOUS-ARC HEADLIGHTS.—General Electric Co., Schenectady, N. Y. Bulletin 4579. Paper; 8 × 10½ ins.; pp. 4; illustrated.

The General Electric Co. has recently perfected a form of headlight for which is claimed many advantages over the carbon arc headlight for use on interurban roads. The upper electrode of the arc is a copper forging and the lower electrode an iron tube filled with a special composition. If the polarity of the electrode is reversed the light given is very much less and this is utilized for dimming the headlight when passing through the streets of cities and towns. Bulletin 4579 describes this headlight, its construction, operation, installation, etc.

"THERMIT" WELDING.—Goldschmidt Thermit Co., 90 West St., New York City. Several publications; paper; illustrated.

To announce the various additions and changes in the aluminothermic processes, which have become so well known and useful, a quarterly house-organ has been started with the title "Reactions." The first number treats of recent improvements in the "Thermit" welding processes, the use of titanium in clearing molten iron and describes notable repair works.

A second publication (6 × 9 ins.; pp. 12) is an exposition of butt-welding wrought iron and steel pipes and rods with price lists of "thermit" charges.

The third pamphlet (5 × 8 ins.; pp. 32) contains shop instructions for the use of "thermit" in common repair work.

DISPOSAL OF MUNICIPAL WASTE.—The United States Construction & Utilization Co., Rochester, N. Y. Paper; 8¼ × 7¼ ins.; pp. 12; one folding diagram.

The Wiselogel system of municipal waste disposal described in this pamphlet includes both garbage reduction and incineration, the latter including, of course, only the more readily combustible portions of municipal waste which are burned under boilers used to raise steam for operating the reduction works. In the Wiselogel process of reduction the garbage is dumped into a horizontally-placed digester, where it is treated with steam, the garbage being kept stirred meanwhile by a revolving reel. From the digester the garbage is dropped into a hydraulic press while still hot, and from the press it goes to a Eureka drier. The scheme of operation is such that the garbage is not exposed during the process of treatment. Gases that might give rise to nuisance are exhausted to and burned on the furnace fires.

INDICATING ELECTRICAL INSTRUMENTS.—The Western Electrical Instrument Co., Newark, N. J. Paper; 3 × 6 ins.; illustrated.

A new line of dead-beat indicating ammeters and voltmeters for alternating-current circuits has been designed by this company, whose past achievements in instrument building should be a guarantee of their claims for this line. It is claimed that there are no errors due to inductance on all ordinary frequencies or to internal or external temperature changes, that they entirely dead beat and that they have a uniform division on 4/5 of their scale. One folder describes a line of switchboard instruments and a second folder is devoted to the line of portables.

A third folder describes a line of low-priced, direct-current, switchboard voltmeters and ammeters of the "soft iron" or "electromagnetic" construction. While these cannot be as good as the standard Weston direct-current instruments the claims made are for an excellent instrument.

SEWAGE TREATMENT.—F. Wallis Stoddart, Western Counties Laboratory, Bristol, England. Paper; 9¾ × 5¾ ins.; pp. 32; illustrated.

Mr. Stoddart has revised his pamphlet describing his method of sewage treatment by means of a specially designed settling or clarification tank and continuous percolating filters, the latter fitted with his sprinklers. These sprinklers consist of sheet-iron stamped to form ridges and gutters, with perforations in both the ridges and the gutters. The forms thus made are set on cast-iron supports to an accurate level, and on being supplied with sewage the latter passes through the notches in the ridges, goes down the under side of the gutter, and trickles down points or pins inserted through the gutter notches. A number of installations of this system have been made in England and elsewhere. The pamphlet is accompanied by a folder describing the method of installing the system.

POWER APPARATUS.—Allis-Chalmers Co., Milwaukee, Wis. Bulletins. Paper; 8 × 10½ ins.; illustrated.

The Electrical Department is responsible for Bulletins 1050, 1057 and 1061. The first of these describes and pictures the general features of the design of alternating-current generators for direct connection to water wheels of various sorts. The second bulletin is largely an exposition of the application of direct-current motors for shop-tool drives. The third pamphlet outlines the design and construction of a line of lighting transformers of capacities ranging from 0.6 to 50 KW.

The Steam Engine Department has placed its name on Bulletins 1503 and 1512 relating to Corliss engines. The type described in the first bulletin is known as the "Direct-connected Reynolds-Corliss Engine" and is intended for driving electrical and other high-speed machinery. The second bulletin mentioned describes several forms of compound Reynolds-Corliss engines.

ELECTRIC MOTORS AND GENERATORS.—Crocker-Wheeler Co., Ampere, N. J. Bulletins. Paper; 7 × 10 ins.; illustrated.

Bulletin 95 describes a line of rotating field generators for plans where space engine capacity will allow an extra belt driven unit. These machines are built in 35 to 200 K. V. A. capacity.

In Bulletin 97 there are listed several types of direct-current switchboard panels, designed on the unit panel plan for installations where a very elaborate switchboard is not needed.

The old familiar bipolar motor of this company, no doubt, made the name "Crocker-Wheeler" well known in this country, but with the advance of dynamo design a still more modern and economical motor in small sizes was demanded. What has been termed the "Form L" motor was developed a few years ago in sizes from 1/20 to 5 HP. The design and applications of this most excellent machine are sketched in Bulletin 98.

The rise of Crocker-Wheeler motors in the Bethlehem rail and structural steel mills is given in Bulletin 99, which is a reprint of an article in the Iron Age of Jan. 23, 1908.

Direct-current motors of the belted type in sizes of 5 to 45 HP., the "Form I," are treated in Bulletin 100.

AUTOMATIC SPRING FINDER.—W. Mansfield & Co., Liverpool, England. Four-page folder; 3¼ × 6 ins.; illustrated.

This little folder describes an "automatic water finder," by means of which, the folder states, "any unskilled person may readily ascertain whether a subterranean spring of pure water exists under a spot where boring operations are desired." It is also stated that the instrument indicates "flowing springs at depths up to 1,000 ft." Very little information is given regarding the nature of the instrument, but a half-tone shows a case mounted on a tripod. The directions for taking observations are as follows:

(1) Fix the tripod stand firmly on the ground with the white line in the center of the little table, pointing to the magnetic north, as indicated by the compass sent with each outfit.

(2) Place the instrument on the stand. Place the magnetic needle on its pivot. Close the case so that no wind can affect the movement of the needle. After the needle has come to rest observe it closely through one of the windows in the case. If subterranean flowing water is present below the instrument, the needle will commence to move, the strength of its swing depending upon the volume of flowing water below.

STEAM AND GAS ENGINE INDICATORS.—The Trill Indicator Co., Corry, Pa. Paper; 6 × 9 ins.; pp. 32; illustrated.

There are three parts to this pamphlet; the first describes the indicators, reducing wheels and planimeters made by this concern; the second gives instructions about the use of indicators on steam and gas engines; and the third part explains the interpretation of the cards.

ELECTRIC POWER APPARATUS.—General Electric Co., Schenectady, N. Y. Bulletins. Paper; 8 × 10½ ins.; illustrated.

Bulletin 4584 describes in detail a direct-current motor (type C Q) made in sizes up to 20 HP., for voltages of 115, 230, 550. Descriptions are given of belt tightner attachments, back geared devices, motor generator sets, linotype and ventilating outfits, machine tools, etc. The tables of dimensions, capacities, etc., should be useful in preparing specifications.

Bulletin 4576 describes the Type F Form K-3 line of oil switches for panel installation and remote control. This is a compact, durable and reliable, oil switch designed to combine every element of satisfactory operation with low price, and to meet the severe requirements of service on 4,500 volts. A complete line of the switches is listed in the Bulletin with data to aid in selecting the proper switch, current-transformer, etc., for any specific service.

The object of Bulletin 4578 is to describe the essentials of the various standard controllers that are manufactured for railway service with special reference to the operating conditions for which each type is suited. Among the controllers described are Type B which include the necessary contacts and connections for electric braking, type K for series parallel operation of the motors, Type L, also in the series parallel class, but which completely open the power circuit when changing from series to parallel, Type R which are designed to control the motor speeds by means of resistance only, and a brief outline of the Sprague-General Electric Type M Control System. Tabulated data and dimension diagrams of the many standard forms of controllers together with illustrations of the apparatus provide ready means of reference.

HOISTING MACHINERY.—American Hoist & Derrick Co., St. Paul, Minn. Paper; 9¼ × 12¼ ins.; pp. 136; illustrated.

This handsome publication presents a variety of machinery for various purposes. A number of designs of hoisting engines for cranes and derricks, etc., are first shown, with from one to four drums, and having either a boiler on the bed plate or pipe connections to a boiler plant. Some of the hoists are operated by electric motors, and both steam and electric hoists may be driven by gearing or friction drums. Hoists operated by belting and by horses are included, and there are a number of hand-power crabs and winches. Several pages are devoted to illustrations and descriptions of locomotive cranes, as used by railways and by manufacturing and industrial plants both for general handling and for the use of grab buckets in the handling of coal and similar material. For railway work, the boom can carry a leader frame, and the machine thus utilized as a pile driver. There is also a derrick-car for use in railway bridge erection and other work. Among the specialties are some 40-ton traveling cranes for the navy yards. Stiff-leg and guy derricks of both steel and timber construction are shown in great variety, some for ordinary handling and others for use in the erection of buildings. Tower derricks for building work have rectangular framed towers carrying booms which are raised as the work progresses. Crane derricks have horizontal booms on which run trolley hoists. Several of the stiff-leg derricks are shown mounted on barges for use in dredging, unloading, contract work, etc. There are also material elevators for building construction, the elevator platforms having wire rope guides. Derrick fittings, buckets, wire rope, blocks, sheaves and other supplies are also included. Numerous half-tone engravings show the various classes of machines in actual use for different purposes.

For other Proposal Advertisements see pages 43, 44, 45, 46, 49, of Advertisements and Construction News page 170.

GRAVEL ROAD.

Cape May Co., N. J.

Sealed proposals will be received by the Board of Chosen Freeholders of Cape May Co., N. J., until twelve o'clock, noon, of the day of its meeting, on the 8th day of June, nineteen hundred and eight (1908), at Cape May Court House, New Jersey, for the construction of a Gravel Road from Cedar Swamp Creek Bridge, near Petersburg, to the Draw Bridge, over the Tuckahoe River, at Tuckahoe, a distance of four and two hundred sixty-four thousandths (4.264) miles, and known as the second section of the Tuckahoe Road. Said road to be constructed according to plans and specifications, which may be seen at the office of Hon. Frederick Gilkyson, State Commissioner of Public Roads, Trenton, N. J.; at the residence of A. B. Smith, Director, Beesley's Point; J. P. Fox, Ocean City; Charles Clouting, Sea Isle City; J. D. Ludlam, South Dennis; and Henry S. Rutherford, Cape May City, or at the office of the Engineer at Ocean City, N. J.

On the day and date first mentioned, all proposals received for said work will be immediately opened and publicly read by the Board of Chosen Freeholders of Cape May County, New Jersey, the said Board reserving the right to reject any or all bids.

Each bid must be accompanied by a certified check to the amount of one thousand dollars ($1,000), drawn payable to the order of Anthony B. Smith, Director of the Board of Chosen Freeholders of Cape May County, New Jersey. The successful bidder will be required to execute, within ten days after the contract has been awarded to him, a bond in such sum, and with such security, as shall be approved by the Board of Chosen Freeholders; said bond shall be in a sum not less than the estimated cost of the road when completed.

Each bidder will be required to submit to the State Commissioner of Public Roads, Hon. Frederick Gilkyson, Trenton, N. J., and to the Engineer, prior to the time of submitting bid for construction, a sample of each class of gravel he proposes to use in the construction of this road.

All proposals must be on the regular "Proposal" form provided for the purpose; sealed and plainly marked on the outside of envelope enclosing them "Proposal for Second Section Tuckahoe Road."

By order of Board of Freeholders.
ANTHONY B. SMITH, Director.
R. FENDALL SMITH, County Engineer.
20-3t

SEWERS.

Lake Placid, N. Y.

Sealed proposals will be received by the Ruisseaumont Sewerage Commission, at the office of F. A. Isham, Lake Placid, N. Y., until one p. m., May 20th, 1908, for the furnishing of all material, and laying complete about two and one-half miles of sewers varying in sizes from six to twelve inches, together with all manholes, lampholes, flush tanks, etc.

All bids must be upon blank forms, and in accordance with "Instruction to Bidders."

Specifications, instruction to bidders, and blank forms of bidding sheets may be obtained and plans and profiles may be seen at the office of W. Z. Larnard, 156 Broadway, New York City, or at the office of F. A. Isham, Lake Placid, N. Y.; also at the office of C. E. Collins, Consulting Engineer, Drexel Building, Philadelphia, Pa.

The right is reserved to reject any or all bids.

Lake Placid, N. Y., April 29th, 1908.
GEORGE A. STEVENS,
EDWIN C. CLEAVES,
HARRY W. MACK,
20-1t Commissioners.

JAIL ADDITION.

Rolling Fork, Miss.

Notice is hereby given that sealed bids will be received by the Clerk of the Board of Supervisors of Sharkey County, Mississippi, to be opened on the first day of June, 1908, at 12 o'clock noon, for building another story to the jail and for new cages for the same. Plans and specifications to accompany each bid. The Board reserves the right to accept or reject any or all bids.

Ordered this 4th day of May, 1908.
GEO. W. WEST,
20-2t Clerk.

SEWERS.

Peekskill, N. Y.

Notice is hereby given that the Board of Trustees of the Village of Peekskill has directed the construction of a house sewer and underdrain in Washington Street, from Bay Street to right-of-way through property of James W. Husted, and through said right-of-way westerly to the New York and Albany Post Road, thence southerly along the New York and Albany Post Road a distance of about one hundred and fifty feet, thence westerly across right-of-way of the New York Central and Hudson River Railroad Company to the Hudson River, in said village, and that the said Board will receive bids for said work until 8 o'clock P. M., Tuesday, May 26, 1908. The sewer pipe must be salt-glazed socket hub tile pipe, first quality, in accordance with the plans and specifications, and must be laid upon the grades indicated upon the map of said sewer on file in the office of the Village Clerk, Municipal Building. Bids must be made to include digging and refilling, furnishing and laying sewer and underdrain pipes and also price per perpendicular foot for the full width of the trench for rock excavation above and below five feet in depth; also the construction of all inlets, manholes and sludge basin necessary thereto, and must file the same with the undersigned on or before the time above specified. Such bid or bids must be accompanied by certified check upon a State or National Bank or Trust Company, payable to the order of the Treasurer of the Village of Peekskill, for the sum of two hundred dollars. Said check to be considered as a guarantee that the contractor will enter into a contract with said village in accordance with the specifications and contract therefor, if the work is awarded to him, and in case he refuses to do so within a specified time the amount of the deposit made by him shall be forfeited and retained by the Village of Peekskill as liquidated damages for such refusal and not as a penalty. The successful bidder or bidders will be required to give a bond in the sum of $5,000 to save the village from all damage by reason of the work and for the faithful performance of the same. Plans and specifications may be seen at the office of the Village Clerk, Municipal Building, Main Street.

The Board of Trustees reserves the right to reject any or all bids.

Dated, Peekskill, N. Y., May 9, 1908.
ALBERT E. CRUGER,
20-1t Clerk.

PUMPING MACHINERY AND PIPE.

GIROUX CONSOLIDATED MINES COMPANY.

Sealed proposals will be received at the office of the Giroux Consolidated Mines Company, 42 Broadway, New York City, until Tuesday, May 26th, at 2 P. M. for furnishing the following material and machinery to be delivered or erected near Ely, Nevada:

2 500,000 gal. horizontal special heavy duty pumping engines, operating against a total head of 1,200 feet.
2 200 HP. boilers including boiler feed pumps.
40,000 ft. 8" I. D. ⅜" wrought iron or steel pipe, plain ends.
20,000 ft. 8" I. D. 5/16" wrought iron or steel pipe, plain ends.
10,000 ft. 8" I. D. ¼" wrought iron or steel pipe, plain ends.
4,000 plain end couplers.

Specifications can be secured at the office of Alexander Potter, Consulting Engineer, 143 Liberty St., New York City.

The right is reserved to reject any or all proposals, or to accept that one which is for the best interests of the Company.

By order of the Board of Directors.
E. L. GIROUX,
ALEXANDER POTTER, Vice-Pres.
Chief Engineer. 20-2t

BRIDGE.

DEPARTMENT OF WORKS.

Oswego, N. Y., May 12th, 1908.

Sealed proposals, endorsed bids for bridge, and addressed to the undersigned at the office above mentioned will be received until two o'clock P. M. on Tuesday, May 26th, 1908, for the construction of a bridge over the Oswego River on the line of Utica Street in the City of Oswego, N. Y.

Specifications for the above work will be exhibited at the office of the Department of Works, Oswego, where full information may be obtained.

The bids must be accompanied by a certified check for $3,000.00 on an Oswego bank or a New York draft for the same amount, payable to the Department of Works of the City of Oswego.

The lowest bid not necessarily accepted.

The Department of Works reserves the right to reject any or all bids.

JOHN SMITH,
Commissioner of Works, Oswego, N. Y.
20-2t

WATER-WORKS SUPPLIES.

Dallas, Tex.

Bids will be received by the O'Neil Engineering Company for the purchase of cast-iron water pipe, electrically operated triplex pumps and their motors, hydrants and valves, and other water-works supplies, on the 20th day of May, 1908. Specifications and bid blanks can be had by addressing the O'NEIL ENGINEERING COMPANY, Dallas, Texas. 20-1t

CONCRETE BRIDGE.

Norwalk, O.

Sealed proposals will be received by the Board of County Commissioners of Huron County, Norwalk, O., until 12 o'clock noon, June 4, 1908, for the construction of a reinforced concrete Arch Bridge over the Vermillion River at Wakeman, Ohio.

The bridge will be of the ribbed, three-hinged, open spandrel type, 145 feet span center to center of end hinges and 220 feet long over all. The roadway will be 18 feet wide.

Plans and specifications are now on file at the office of the Commissioners of Huron County, at Norwalk, O., and also at the following places:

Wilbur J. Watson, Consulting Engineer, Citizens' Bldg., Cleveland, O.
Builders' Exchange, Cleveland, O.
Builders' Exchange, Toledo, O.
Engineering News, 220 Broadway, New York City.
Engineering Contracting, 355 Dearborn St., Chicago, Ill.

Plans and specifications may also be procured from the Consulting Engineer upon the payment of five dollars per set.

Proposal blanks must be made upon blanks which may be procured at the office of the County Commissioners or from the undersigned.

Each proposal must be accompanied by a certified check, on a bank of good standing, in the sum of five hundred dollars, as a guarantee that if the bid is accepted, a contract will be entered into. The Contract Bond will be for five thousand dollars. Certified checks will be returned upon the acceptance or rejection of the proposal.

The right to reject any or all bids is reserved by the Commissioners.

WILBUR J. WATSON,
Consulting Engineer,
Citizens' Bldg., Cleveland, O.
May 9, 1908. 20-1t

SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE, OF LOUISVILLE.
Incorporated.

Sealed proposals for the construction of a sewer known as the Cave Hill Cemetery Sewer and Drain, Contract No. 7 of the Comprehensive System of Sewerage for the City of Louisville, Kentucky, will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, May 27th, 1908.

This work consists mainly of a drain constructed of reinforced concrete 5 feet 2 inches wide by 4 feet 11 inches high, 1,700 feet long and 2 feet 9 inches wide by 2 feet 7 inches high, 1,440 long, including an outlet structure and connecting chamber, and a vitrified pipe sewer 12 inches in diameter, 1,700 feet long and 10 inches in diameter, 1,440 feet long.

The principal items in the Engineer's estimate of the work are approximately as follows:

Excavation	3,155 linear feet
Concrete	1,000 cubic yards
Reinforcing steel bars......	56,500 lbs.

Plans and specifications may be seen at the office of the Commissioners and at the office of the Consulting Engineer, Harrison P. Eddy, of Metcalf & Eddy, 14 Beacon St., Boston, Mass.

Sealed bids should be endorsed "Proposals for Cave Hill Cemetery Sewer and Drain," and addressed to the Commissioners of Sewerage, 603, 605 and 607 Equitable Building, Louisville, Ky. Each bid shall be accompanied by a certified check [illegible] at least seven per cent (7%) of the to[illegible]mount of the bid or a "Bidder's Bond [illegible] described in the form of proposal.

P. L. [illegible]ERTON,
Chairman.
CHAS. P. WEAVER, Sec'y [illegible] Treas.
J. B. F. BREED, Chief [illegible]eer. 20-2t

WATER-WORKS SUPPLIES.

[illegible]ka, Okla.

Sealed bids will be received by F. W. Anderson, City Clerk, Waurika, on May 22d, for cast-iron pipe, [illegible] heater, boiler, hydrants and valves [illegible]r water-works material, and will be [illegible]d on the 22d day of May, 1908. Sp[illegible]s can be had by addressing the O'NEIL ENGINEERING COMPANY, Dallas, Tex. 20-1t

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., May 9, 1908.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 22d day of June, 1908, and then opened for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. Post Office at Provo, Utah, in accordance with drawings and specification, copies of which may be obtained from the Custodian of [illegible] at Provo, Utah, after the 15th of May, [illegible] at this office after the 11th of May, 1908, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 20-2t

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., May 11, 1908.—Sealed proposals will be received at this office until 3 o'clock p. m. on the 11th day of June, 1908, and then opened, for an elevator plant in the U. S. Court-House, Custom-House and Post-Office, Seattle, Washington, in accordance with the drawings and specification, copies of which may be obtained at this office, or at the office of the Superintendent of Construction, Seattle, Washington, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 20-2t

SEALED PROPOSALS will be received at the office of the United States Reclamation Service, Portland, Oregon, until 2 o'clock P. M., July 15, 1908, for the construction of Sulphur Creek wasteway channel and structures near Sunnyside, Washington. The work includes the dredging of about seven miles of channel, involving about 310,000 cubic yards of excavation, and the placing of about 1,600 cubic yards of concrete masonry and 2,000 cubic yards of riprap.

For particulars, address the United States Reclamation Service, Washington, D. C., Portland, Oregon, or Sunnyside, Washington.

JAMES RUDOLPH GARFIELD,
20-9t Secretary.

QUARTERMASTER'S OFFICE, West Point, N. Y., May 14, 1908.—Sealed proposals, in triplicate, subject to the usual conditions, will be received at this office until 12 o'clock, noon, June 4, 1908, for erection of one set of Double Civilians' Quarters at West Point, N. Y., in accordance with plans and specifications on file in this office. The United States reserves the right to accept or reject any or all proposals. Forms for proposals furnished upon application. Address QUARTERMASTER, West Point, N. Y. 20-3t

Miscellaneous Wants

WANTED.—Second-hand steam shovel, about 1¾ yds. capacity dipper, standard gage trucks, "Marion" preferred. Must be in good condition; send detailed specifications with reply. Address "A. A. 20," Engineering News, New York. 20-1t

FOR SALE

FOR SALE.

One No. 11 Chicago Improved Cube Concrete Mixer

mounted on trucks, with steam engine and boiler. Bought new in 1907. Only slightly used. Price, f. o. b. cars, $600.00.

D. H. BURRELL & CO.,
Little Falls, N. Y. 20-1t

FOR SALE.

CONCRETE MIXERS

RANSOME—
- No. 3 (1906 Model), on wheels, with 8 x 8" engine, automatic water tank, charging hopper, etc.
- No. 3 (1905 Model), on wheels, with engine.
- No. 2 (1906 Model), on wheels, complete with Fairbanks-Morse Gasoline Engine.
- No. 2, on wheels, with engine and boiler, automatic water tank, charging hopper, etc. Used one month.
- No. 1, on wheels, with pulley for belt drive.

SMITH—
- No. 5, on skids, with engine and boiler; all complete.
- No. 2½, on skids, with engine, charging hopper, etc. Used one month.
- No. 2, on wheels, with engine and boiler.
- No. 1, on wheels, with engine.

CONTINUOUS MIXERS—
- No. 3 Foote, on wheels, with power.
- Eureka, on wheels, with gasoline engine; almost new.

Have special bargains in Steam Shovels, Locomotive Cranes, Road Rollers, Traction Engines, Dump Wagons and Carts, Rock Crushers and other equipment for Municipal and General Contractors.

JOHN B. WATSON,
Drexel Building, - - Philadelphia, Pa.
'Most Everything for the Contractor.
20-1t